STR-DA80ES/TA-V88ES/TA-VA80ES

SERVICE MANUAL

US Model
Canadian Model
STR-DA80ES
AEP Model
UK Model
TA-VA80ES
E Model
STR-DA80ES/TA-VA80ES
Australian Model
PX Model
STR-DA80ES
Chinese Model
TA-V88ES

Photo: STR-DA80ES

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SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

POWER OUTPUT AND TOTAL HARMONIC DISTORTION

With 8-ohm load, both channels driven, from 20-20,000 Hz, rated 100 watts per channel, minimum RMS power, with no more than 0.09 % total harmonic distorition from 250 milliwatts to rated output (US model).

Amplifier section

POWER OUTPUT

Stereo mode
STR-DA80ES:
(8 ohms 20 Hz-20 kHz, THD 0.05 %)
100 W + 100 W
TA-V88ES:
(6 ohms at 1 kHz, THD 0.7%)
100 W + 100 W
TA-VA80ES:
(4 ohms at 1 kHz, THD 0.7%)
100 W + 100 W

Surround mode
STR-DA80ES:
(8 ohms at 1 kHz, THD 0.05 %)
Front : 100 W + 100 W
Center[1)] : 100 W
Rear[1)] : 100 W + 100 W
TA-V88ES:
(6 ohms at 1 kHz, THD 0.7%)
Front : 100 W + 100 W
Center[1)] : 100 W
Rear[1)] : 100 W + 100 W
TA-VA80ES:
(4 ohms at 1 kHz, THD 0.7%)
Front : 100 W + 100 W
Center[1)] : 100 W
Rear[1)] : 100 W + 100 W

[1)] Depending on the sound field settings and the source, sound will not be output.

Dynamic power output
155 W + 155 W, 8 ohms
220 W + 220 W, 4 ohms
(STR-DA80ES: US, Canadian)

Harmonic distortion at rated output
STR-DA80ES:
Less than 0.05 % (with DIRECT PASS on)
TA-V88ES/TA-VA80ES:
Less than 0.7 % (with DIRECT PASS on)

Frequency response
PHONO:
RIAA equalization curve ±0.5 dB
CD, TAPE, DAT/MD, VIDEO 1, 2, 3, LD/DVD, TV (/DBS):
10 Hz-50 kHz $^{+0.5}_{-2}$dB (with DIRECT PASS on)

Inputs

	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO	2.5 mV	50 kilohms	75 dB (A, 2.5 mV)
CD	200 mV (STR-DA80ES) 150 mV (TA-V88ES/VA80ES)		
TAPE, DAT/MD, VIDEO 1, 2, 3 LD, TV/DBS	200 mV (STR-DA80ES) 150 mV (TA-V88ES/VA80ES)	50 kilohms	82 dB (A, 150 mV)
TUNER	150 mV (TA-V88ES/VA80ES)		
LD DVD AC-3 RF IN	—	75 Ω	100 dB (A, 20 kHz, LPF)
LD DVD COAXIAL IN	0.5 Vp-p	75 Ω	100 dB (A, 20 kHz, LPF)
LD DVD/TV (DBS)/CD/ DAT MD OPTICAL IN	—	—	100 dB (A, 20 kHz, LPF)

STR-DA80ES
FM STEREO/FM-AM RECEIVER
TA-V88ES/TA-VA80ES
INTEGRATED AV AMPLIFIER

MICROFILM

SONY®

Outputs REC OUT: DAT/MD, TAPE
Voltage: 200 mV (STR-DA80ES) 150 mV (TA-V88ES/VA80ES)
Impedance: 1 kilohm
AUDIO OUT: VIDEO 1, 2
Voltage: 200 mV (STR-DA80ES) 150 mV (TA-V88ES/VA80ES)
Inpedance: 1 kilohm
PRE OUT:
Voltage: 2 Vrms
Impedance: 1 kilohm
PHONES:
Accepts low and high impedance headphones

BASS BOOST +6 dB at 70 Hz (STR-DA80ES)
+10 dB at 70 Hz (TA-V88ES/VA80ES)

Digital signal processor section

Modulation (A/D conversion)
High Density Linear Converter

Demodulation (D/A conversion)
High Density Linear Converter (Advanced pulse D/A converter)

Sampling frequency
48 kHz

Surround LFE MIX:
MUTE, –20 - 0 dB, 0.5 dB step
D.RANGE COMP:
OFF, 0.1 - 0.9, STD, MAX
REAR level:
–20 - +10 dB, 0.5 dB step
CENTER level:
–20 - +10 dB, 0.5 dB step
SUB WOOFER level:
–20 - +10 dB, 0.5 dB step
EFFECT:
21-step adjustable
WALL:
17-step adjustable
SEAT
F/R: 17-step adjustable
L/R: 17-step adjustable
REBERB time:
17-step adjustable

Equalizer BAND: BASS/TREBLE
Turnover frequency:
Bass: 99 Hz-992 Hz
Treble: 1.0 kHz-8.6 kHz
Level: ±10 dB, 0.5 dB step

FM tuner section (STR-DA80ES)

Tuning range 87.5-108.0 MHz

Antenna terminals
75 ohms, unbalanced

Sensitivity Mono: 18.3 dBf, 4.5 µV
Stereo: 38.3 dBf, 45 µV

Usable sensitivity
11.2 dBf, 2 µV (IHF)

S/N Mono: 76 dB
Stereo: 70 dB

Harmonic distortion at 1 kHz
Mono: 0.3 %
Stereo: 0.5 %

Separation 45 dB at 1 kHz

Frequency response
30 Hz-15 kHz $^{+0.5}_{-2}$dB

Selectivity 60 dB at 400 kHz

AM tuner section (STR-DA80ES)

Tuning range With 10 kHz interval:
530-1710 kHz (US and Canadian models[3])
530-1610 kHz (models for all other countries except for Australia)
With 9 kHz interval:
531-1710 kHz (US and Canadian models)
531-1602 kHz (Australian model and models for all other countries[3])

Antenna Loop antenna

Usable sensitivity
50 dB/m (at 1,000 kHz or 999 kHz)

S/N 54 dB (at 50 mV/m)

Harmonic distortion
0.5 % (50 mV/m, 400 kHz)

Selectivity At 9 kHz: 35 dB
At 10 kHz: 40 db

[3] You can change the AM tuning interval to 9 kHz (US and Canadian models) or to 10 kHz (models for all other countries except for Australia). After tuning in any AM station, turn off the receiver. Hold down the PRESET TUNING + button and press the POWER button. All preset stations will be erased when you change the interval. To reset the interval to 10 kHz (or 9 kHz), repeat the procedure.

Video section

Inputs VIDEO: 1 Vp-p 75 ohms
S VIDEO:
Y: 1 Vp-; 75 ohms
C: 0.286 Vp-p 75 ohms

Outputs VIDEO: 1 Vp-p 75 ohms
S VIDEO:
Y: 1 Vp-p 75 ohms
C: 0.286 Vp-p 75 ohms

General

System Tuner section:
PLL quartz-locked digital synthesizer system (STR-DA80ES)
Preamplifier section:
Low-noise NF type equalizer
Power amplifier section:
Pure-complementary parallel P.P.

Power requirements
US and Canadian models:
120 V AC, 60 Hz
Australian model:
240 V AC, 50 Hz
European models:
230 V AC, 50 Hz
Other models:
120/220/240 V AC selectable, 50/60 Hz

Power consumption
STR-DA80ES:
US model: 340 W
Canadian model: 500 VA
Australian model: 380 W
Other models: 380 W
TA-V88ES: 370 W
TA-VA80ES: 380 W

AC outlets STR-DA80ES:
US and Canadian models:
2 switched, total 120 W
Australian model:
1 switched, maximum 100 W
Other models:
2 switched, total 100 W
TA-V88ES/VA80ES:
1 switched, maximum 100 W

Dimensions 430 × 160 × 435 (440[4]) mm ($17 \times 6\frac{3}{8} \times 17\frac{1}{4}$ ($17\frac{3}{8}$) inches) including projecting parts and controls

[4] When the front cover is open

Mass (Approx.) 15.9 kg (35 Ib 1 oz) (STR-DA80ES)
15.6 kg (TA-V88ES/VA80ES)

Supplied accessories
FM wire antenna (1) (STR-DA80ES)
AM loop antenna (1) (STR-DA80ES)
Remote commander RM-P501 (remote) (1)
Size AA (R6) batteries (2)

Design and specifications are sbuject to change without notice.

TABLE OF CONTENTS

1. GENERAL 4

2. DISASSEMBLY 7

3. ELECTRICAL ADJUSTMENTS 9

4. DIAGRAMS

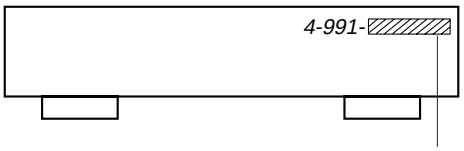
4-1. IC Pin Function Description 10
4-2. Schematic Diagram – DISPLAY Section – 24
4-3. Printed Wiring Boards – DISPLAY Section – 29
4-4. Schematic Diagram – VIDEO Section – 33
4-5. Printed Wiring Boards – VIDEO Section – 37
4-6. Schematic Diagram – INPUT/TUNER/POWER Section – 41
4-7. Printed Wiring Boards – INPUT/TUNER/POWER Section – 45
4-8. Schematic Diagram – DIGITAL Section – 50
4-9. Printed Wiring Boards – DIGITAL Section – 55
4-10. Schematic Diagram – AMP/OUTPUT Section – 59
4-11. Printed Wiring Boards – AMP/OUTPUT Section – 63

5. EXPLODED VIEWS 69

6. ELECTRICAL PARTS LIST 74

MODEL IDENTIFICATION

– BACK PANEL –



STR-DA80ES	*US Model*	*: 373-3* ☐
STR-DA80ES	*Canadian Model*	*: 373-4* ☐
STR-DA80ES	*Australian Model*	*: 373-5* ☐
STR-DA80ES	*E, PX Model*	*: 373-6* ☐
TA-V88ES	*Chinese Model*	*: 374-4* ☐
TA-VA80ES	*AEP, UK, German, EE, CIS Model*	*: 374-0* ☐
TA-VA80ES	*E, Malaysia, Singapore Model*	*: 374-3* ☐

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

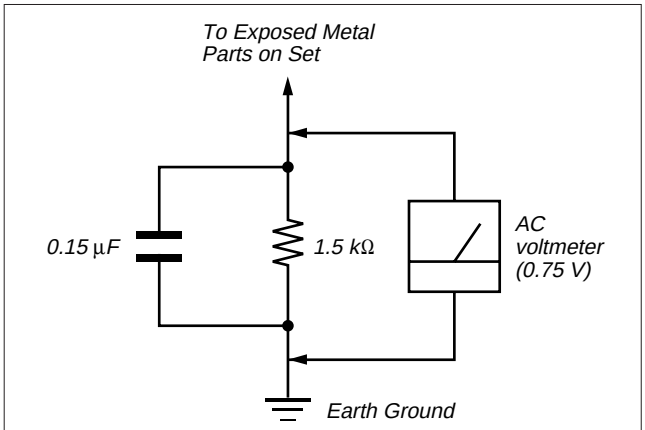


Fig. A. Using an AC voltmeter to check AC leakage.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

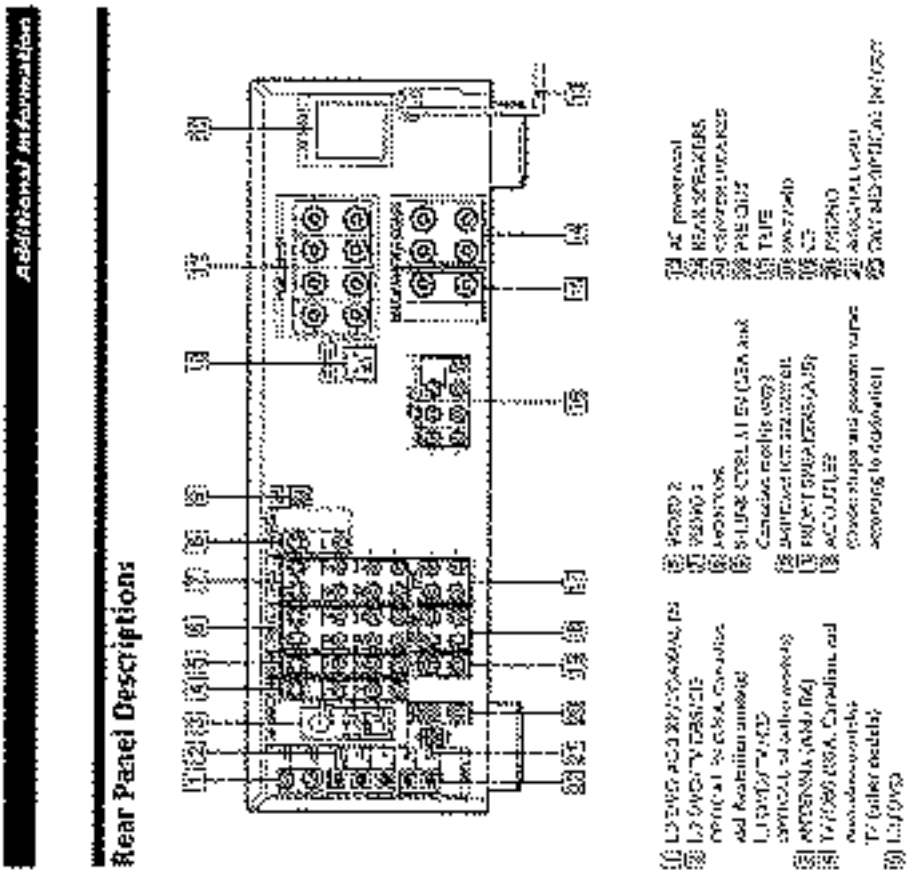
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

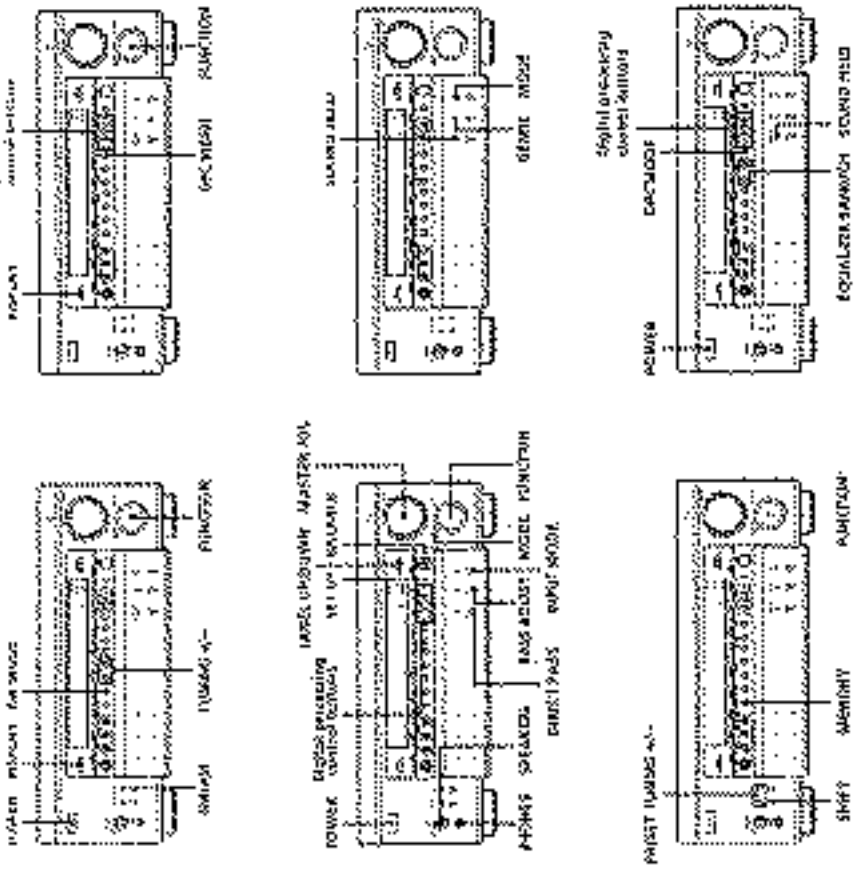
This section is extracted from instruction manual.

SECTION 1
GENERAL

• STR-DA80ES



Front Panel Description



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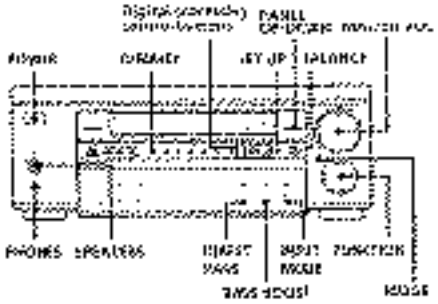
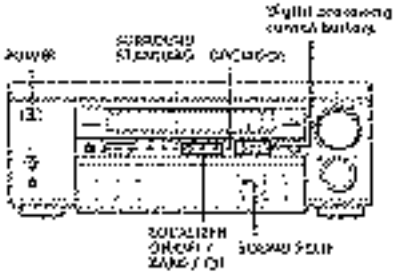
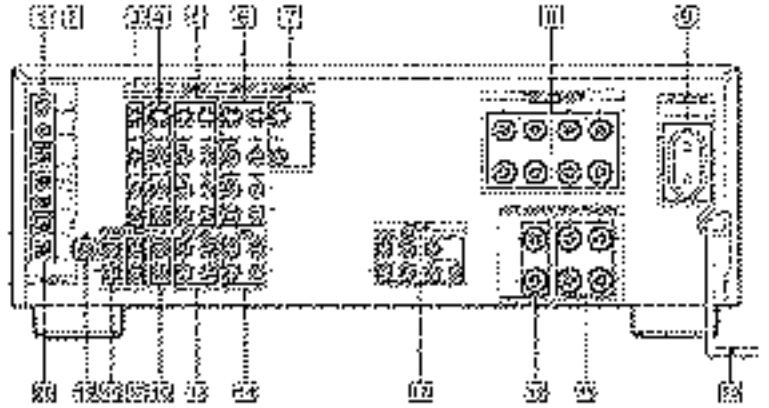


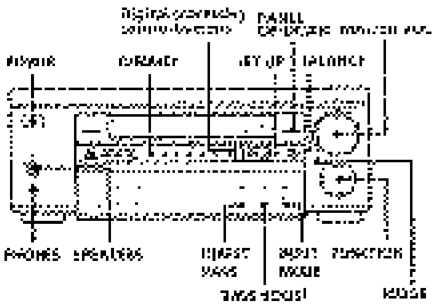


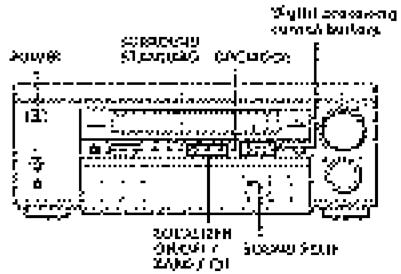
Rear Panel Descriptions

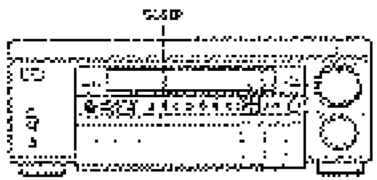


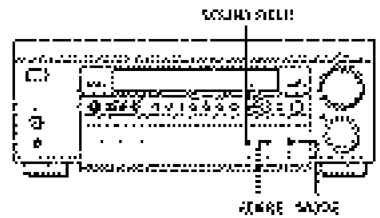
(1) [illegible]
(2) [illegible]
(3) TV
(4) LD
(5) VIDEO 2
(6) VIDEO 1
(7) MONITOR
(8) [illegible]
(9) AC OUTLET
(10) AC power cord
(11) REAR SPEAKERS
(12) CENTER SPEAKER
(13) PRE OUT
(14) [illegible]
(15) [illegible]
(16) CD
(17) [illegible]
(18) [illegible]
(19) [illegible]

Front Panel Description

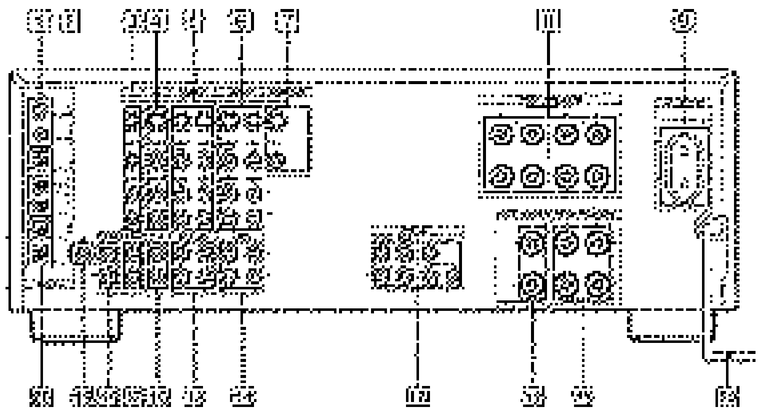








Rear Panel Descriptions

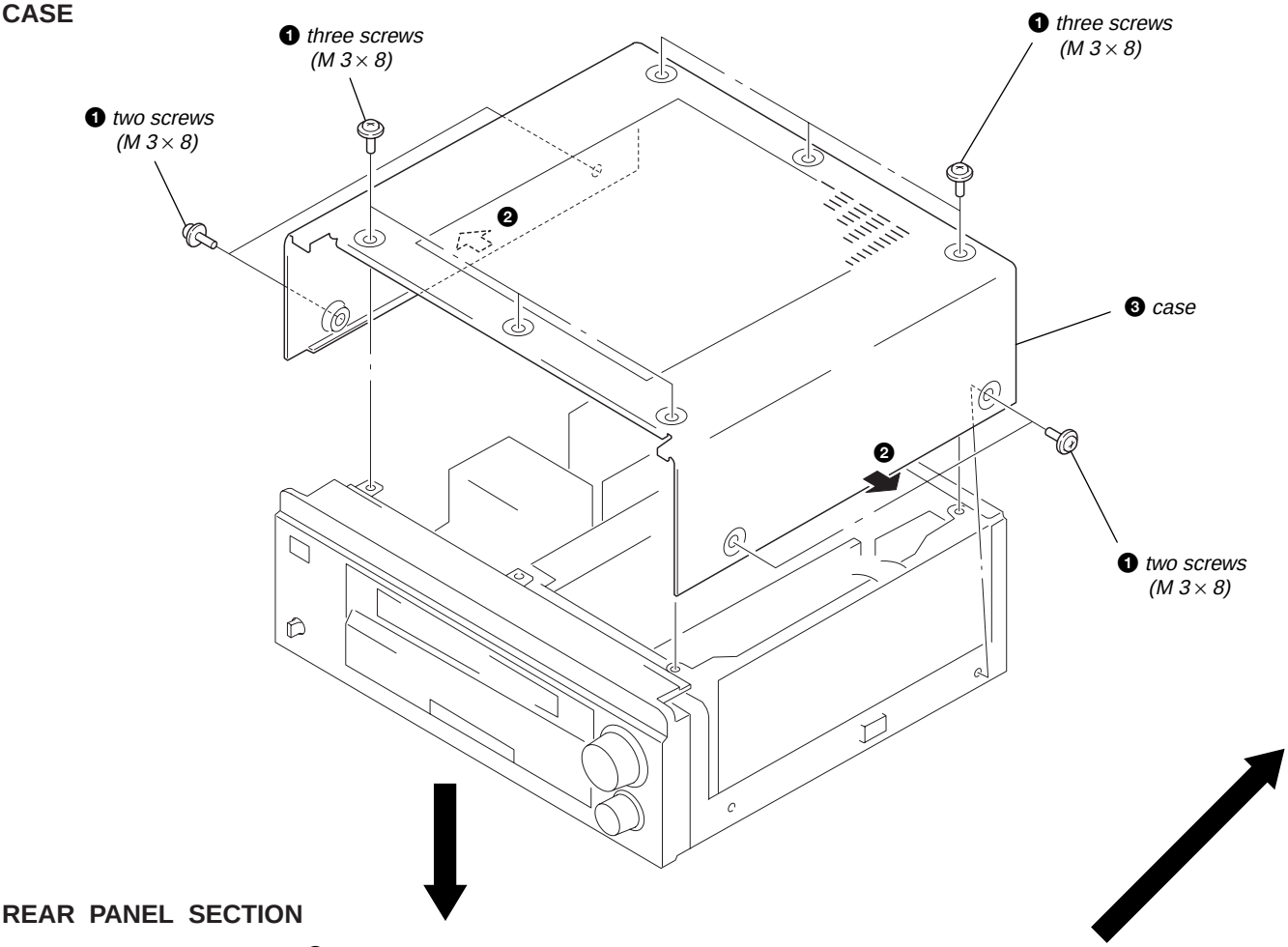


1. LD [illegible] COAXIAL IN
2. LD/TV/VCR OPTICAL IN
3. TV
4. LD
5. VIDEO 2
6. VIDEO 1
7. MONITOR
8. FRONT SPEAKERS (A/B)
9. AC OUTLET
10. AC power cord
11. REAR SPEAKERS
12. CENTER SPEAKER
13. PRE OUT
14. TAPE
15. [illegible]
16. CD
17. TUNER
18. PHONO
19. [illegible]
20. DAT/MD OPTICAL IN/OUT

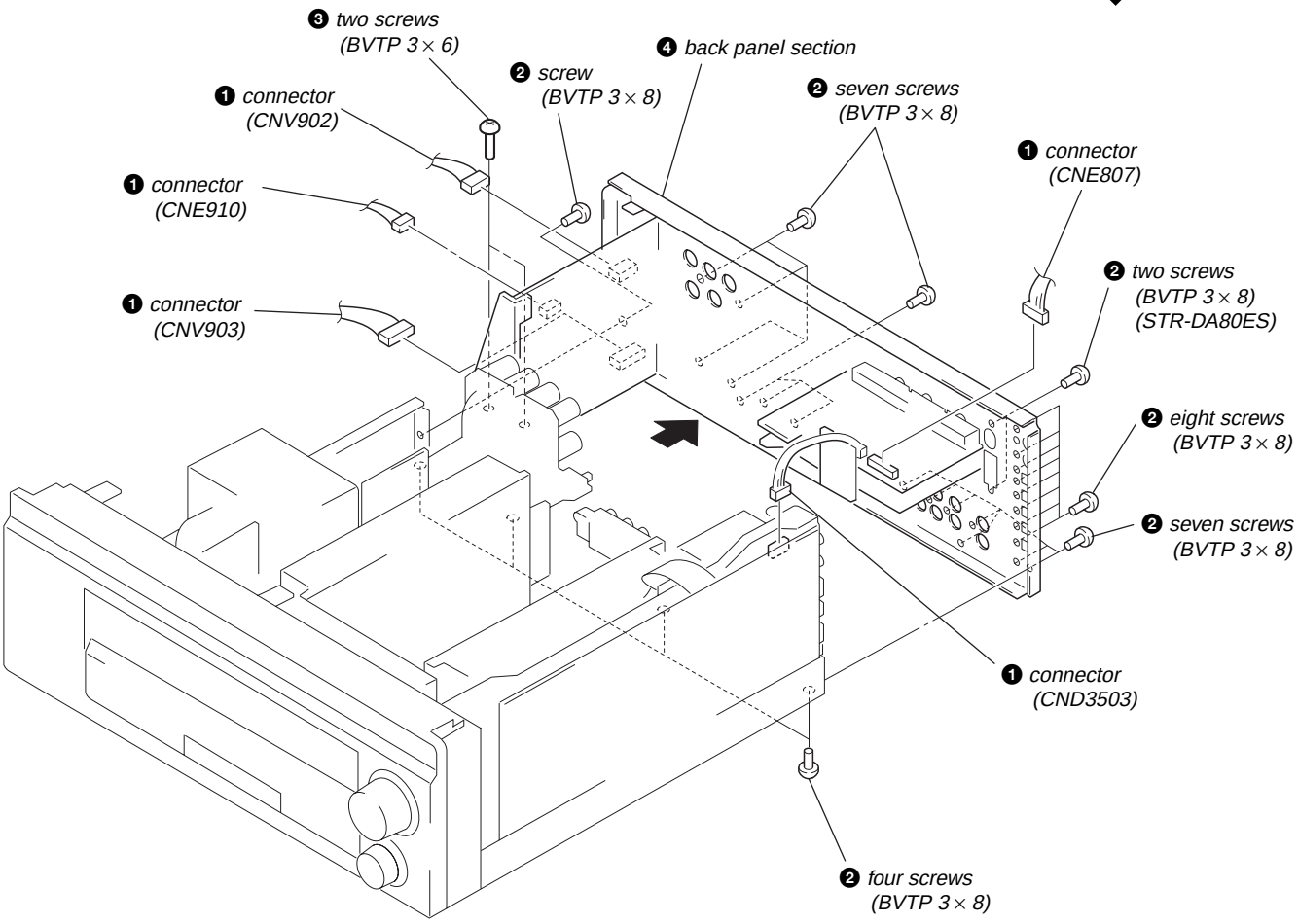
SECTION 2
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

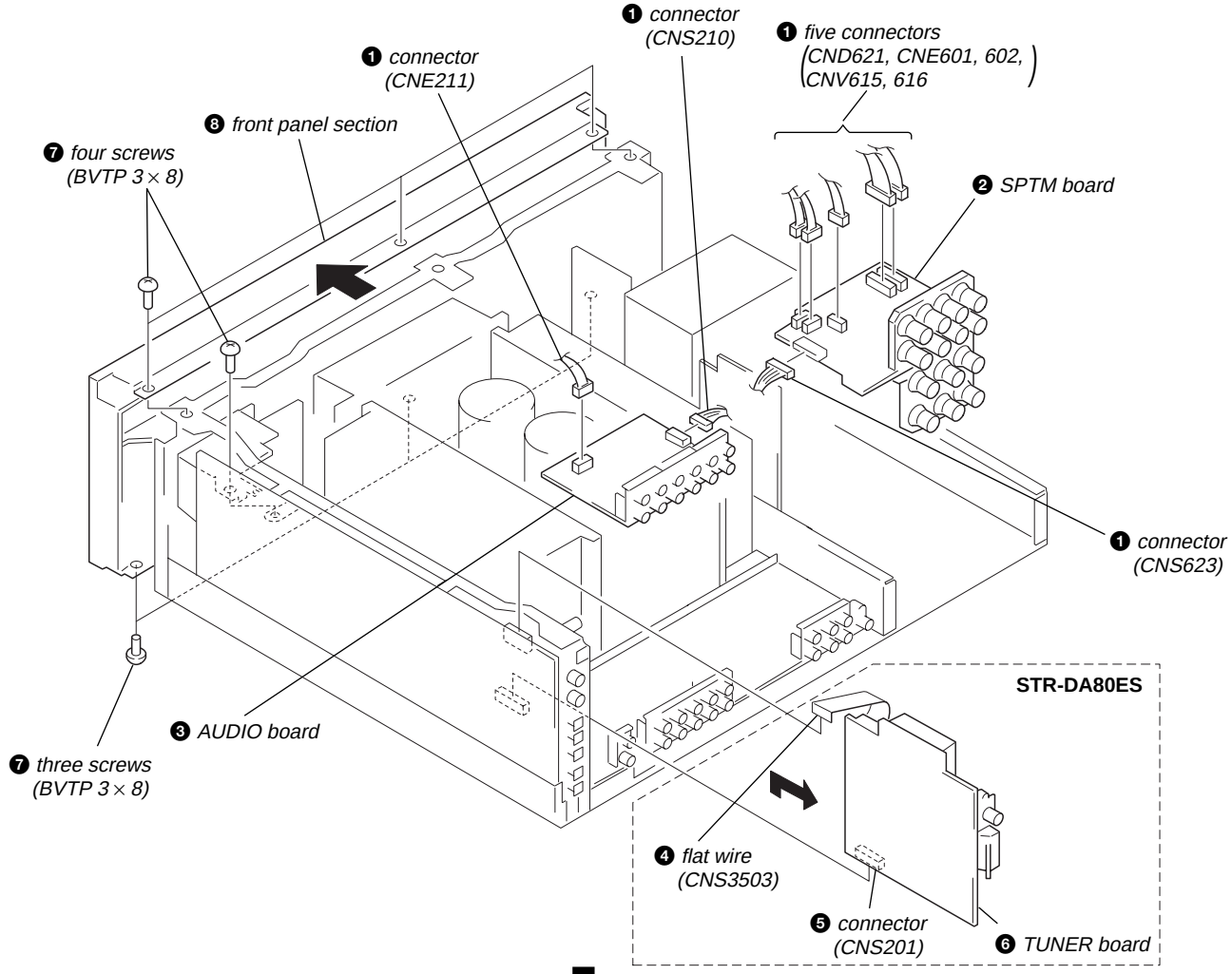
CASE



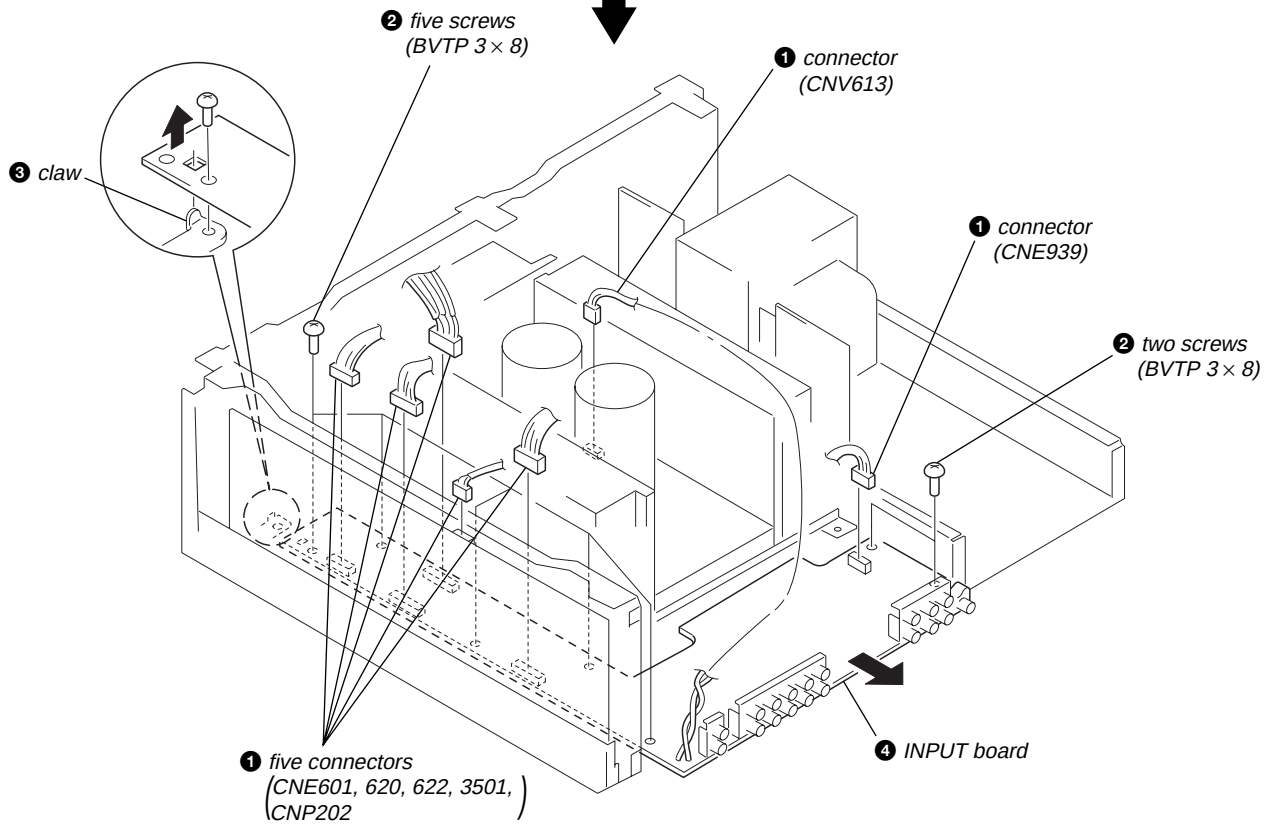
REAR PANEL SECTION


❸ two screws (BVTP 3 × 6)
❹ back panel section
❷ screw (BVTP 3 × 8)
❷ seven screws (BVTP 3 × 8)
❶ connector (CNV902)
❶ connector (CNE807)
❶ connector (CNE910)
❷ two screws (BVTP 3 × 8) (STR-DA80ES)
❶ connector (CNV903)
❷ eight screws (BVTP 3 × 8)
❷ seven screws (BVTP 3 × 8)
❶ connector (CND3503)
❷ four screws (BVTP 3 × 8)

TUNER/AUDIO/SPTM BOARD, FRONT PANEL SECTION


❶ connector (CNS210)
❶ five connectors (CND621, CNE601, 602, CNV615, 616)
❶ connector (CNE211)
❽ front panel section
❼ four screws (BVTP 3 × 8)
❷ SPTM board
❶ connector (CNS623)
❸ AUDIO board
❼ three screws (BVTP 3 × 8)
STR-DA80ES
❹ flat wire (CNS3503)
❺ connector (CNS201)
❻ TUNER board

INPUT BOARD


❷ five screws (BVTP 3 × 8)
❶ connector (CNV613)
❸ claw
❶ connector (CNE939)
❷ two screws (BVTP 3 × 8)
❶ five connectors (CNE601, 620, 622, 3501, CNP202)
❹ INPUT board

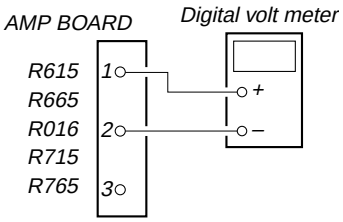
SECTION 3
ELECTRICAL ADJUSTMENTS

DC BIAS CURRENT Adjustment (with no signal input)

Note:

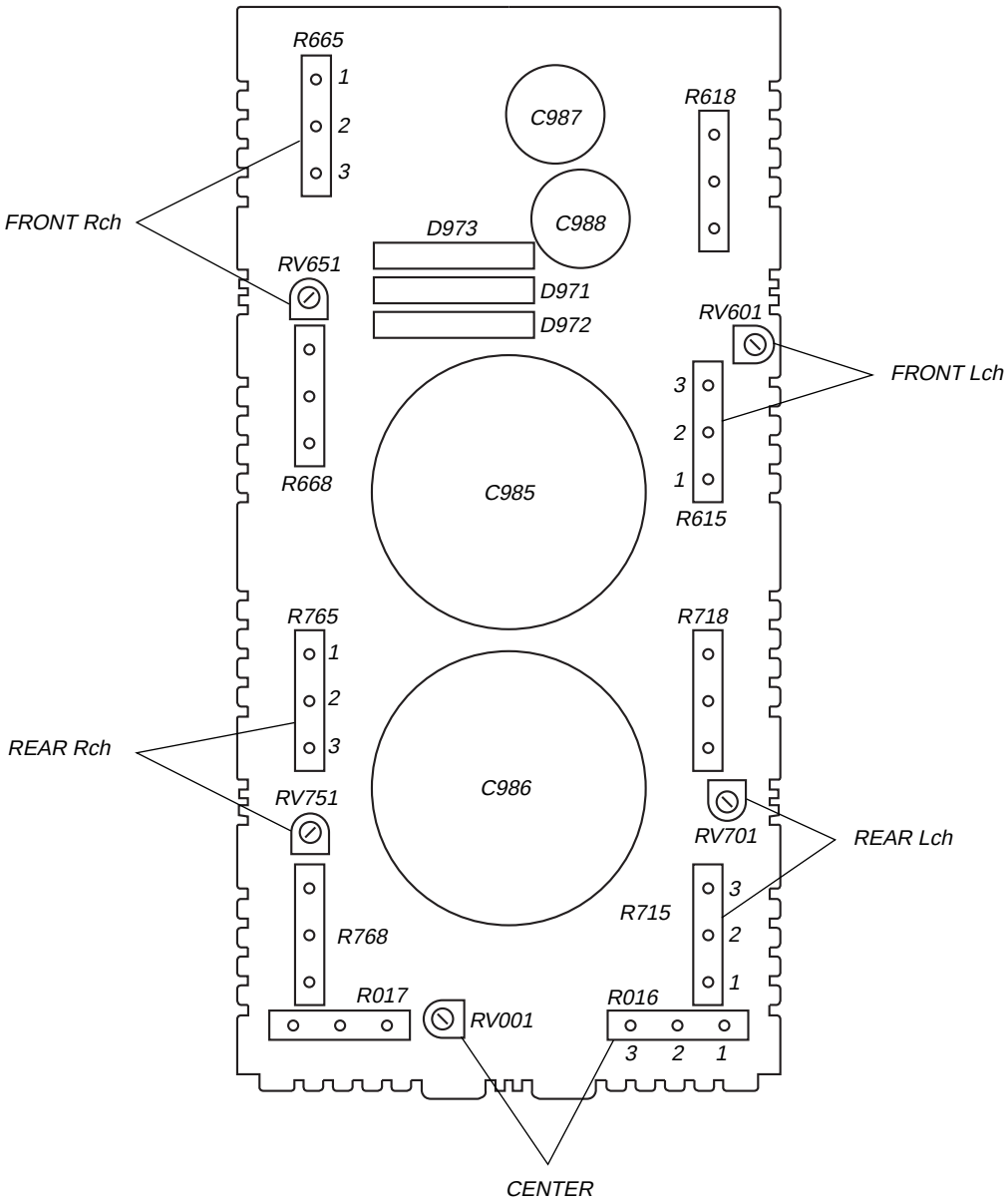
1. DC BIAS CURRENT adjustments should be made 30 seconds after the POWER switch is turned on (POWER ON).
2. After replacing the power transistors, DC BIAS CURRENT adjustments should be perfomed.

Procedure:



	Connecting point	Adjustment part	Reading on Digital volt meter
FRONT Lch	R615	RV601	20 mV
FRONT Rch	R665	RV651	20 mV
CENTER	R016	RV001	20 mV
REAR Lch	R715	RV701	20 mV
REAR Rch	R765	RV751	20 mV

[AMP BOARD] (COMPONENT SIDE)



SECTION 4
DIAGRAMS

4-1. IC Pin Function Description

• DISPLAY BOARD IC105 MB90673PF-G-206-BND
(FLUORESCENT INDICATOR TUBE DRIVE CONTROLLER, KEY CONTROL)

Pin No.	Pin Name	I/O	Function
1	MBUS (VZ)	I	Not used (fixed at “L”)
2	MBUS (MON)	I	Not used (fixed at “L”)
3	MBUS (STU)	O	Not used (open)
4	LED-V3	O	LED drive signal output terminal “H”: LED on (for function VIDEO 3 indicator)
5	LED-V2	O	LED drive signal output terminal “H”: LED on (for function VIDEO 2 indicator)
6	LED-V1	O	LED drive signal output terminal “H”: LED on (for function VIDEO 1 indicator)
7	STANDBY	O	LED drive signal output terminal “H”: LED on (for function STANDBY indicator)
8	DPC (SURR)	O	LED drive signal output terminal “H”: LED on (for function SUR indicator)
9	DPC (EQ)	O	LED drive signal output terminal “H”: LED on (for function EQ indicator)
10	DPC (INDEX)	O	LED drive signal output terminal “H”: LED on (for function INDEX indicator)
11	DVSS	—	Ground terminal
12	LED-CE	O	LED drive signal output terminal “H”: LED on (for function CD indicator)
13	LED-DAT/MD	O	LED drive signal output terminal “H”: LED on (for function DAT/MD indicator)
14	LED-TAPE	O	LED drive signal output terminal “H”: LED on (for function TAPE indicator)
15	LED-TV	O	LED drive signal output terminal “H”: LED on (for function TV/DBS (STR-DA80ES) or TV (TA-V88ES/VA80ES) indicator)
16	LED-LD	O	LED drive signal output terminal “H”: LED on (for function LD/DVD indicator)
17	LED-V3	O	LED drive signal output terminal “H”: LED on (for function VIDEO 3 indicator)
18	LED-V2	O	LED drive signal output terminal “H”: LED on (for function VIDEO 2 indicator)
19	LED-V1	O	LED drive signal output terminal “H”: LED on (for function VIDEO 1 indicator)
20	RX (SIN)	I	Receive data input from the on screen display controller Not used (fixed at “L”)
21	TX (SOUT)	O	Transmit data output to the on screen display controller Not used (open)
22	BUSY	I	Busy signal input from the on screen display controller Not used (fixed at “L”)
23	FL CLEAR	O	“Display clear signal output to the fluorescent indicator tube driver (IC101, 102)”
24	FL DATA	O	Serial data output to the fluorescent indicator tube driver (IC102)
25	FL CLK	O	“Serial data transfer clock signal output to the fluorescent indicator tube driver (IC101, 102)”
26	LAT (OSD)	O	“Serial data latch pulse signal output to the fluorescent indicator tube driver (IC101, 102)”
27	SIRCS1	I	Sircs signal input from the remote control receiver (IC104)
28	AVCC	—	Power supply terminal (+5V)
29	AVR+	I	Reference voltage input terminal (+5V)
30	AVR–	I	Reference voltage input terminal (+0V)
31	GND	—	Ground terminal
32	AD KEY IN 1	I	Key input terminal (A/D input) S132 to 134 (INPUT MODE, DIRECT PASS, BASS BOOST keys)
33	AD KEY IN 2	I	Key input terminal (A/D input) S116 to 119 (FM/AM, SHIFT, PRESET TUNING +/– keys) (STR-DA80ES). Not used (open) (TA-V88ES/VA80ES)
34	DVSS	—	Ground terminal
35	AD KEY IN 3	I	Key input terminal (A/D input) S109 to 114 (STR-DA80ES: EQUALIZER BAND, TUNING +/–, FM MODE, MEMORY, DISPLAY keys) (TA-V88ES/VA80ES: EQUALIZER BAND, EQUALIZER ON/OFF, SOUND FIELD STANDARD, SLEEP, DIMMER)
36	AD KEY IN 4	I	Key input terminal (A/D input) S101 to 108 (EQUALIZER CH, DPC MODE, cursor ←/↓/↑/→, SET UP, OPEN/CLOSE keys)
37	AD KEY IN 5	I	Key input terminal (A/D input) S129 to 131 (MODE, SOUND FIELD ON/OFF, GENRE keys)
38	AD VERSION	I	Setting terminal for the destination (A/D input)
39	VOL-UP	I	Motor drive signal input for the master volume
40	VOL-DOWN	I	Motor drive signal input for the master volume

Pin No.	Pin Name	I/O	Function
41	MODE0	I	Mode selection terminal (fixed at “H”)
42	MODE1	I	Mode selection terminal (fixed at “H”)
43	MODE2	I	Mode selection terminal (fixed at “L”)
44	STANDBY	I	Hardware standby signal input terminal (fixed at “H”)
45	STOP	I	Stop signal input terminal
46	$\overline{\text{U-RESET}}$	I	System reset signal input from the master controller (IC3413) “L”: reset
47	U-SREQ	O	Communication request signal output to the master controller (IC3413)
48	U-MREQ	I	Communication request signal input from the master controller (IC3413)
49	U-DATA	I/O	Serial data in/out with the master controller (IC3413)
50	U-CLOCK	I	Serial data reading clock signal input from the master controller (IC3413)
51	$\overline{\text{HIFI}}$/ES	I	Setting terminal for the destination (fixed at “H”)
52	AUBUS-IN	I	Audio bus signal input terminal
53	AUBUS-OUT	O	Audio bus signal output terminal
54	FUNCTION-B	I	Jog dial pulse input of the rotary encoder (RV101 FUNCTION)
55	FUNCTION-A	I	Jog dial pulse input of the rotary encoder (RV101 FUNCTION)
56	OUT-OPEN	O	Motor drive signal output to the door open/close motor drive (IC107)
57	OUT-CLOSE	O	Motor drive signal output to the door open/close motor drive (IC107)
58	SW-OPEN	I	Door open detect sensor (PH102) input terminal
59	SW-CLOSE	I	Door close detect sensor (PH103) input terminal
60	—	—	Not used (open)
61	SWBAL	I	Balance volume on/off detect signal input terminal
62	$\overline{\text{RESET}}$	I	Reset signal input terminal “L”: reset
63	GND	—	Ground terminal
64	XO	O	System clock signal output terminal (4MHz)
65	XI	I	System clock signal input terminal (4MHz)
66	VCC	—	Power supply terminal (+5V)
67	LED-TUNER	O	LED drive signal output terminal “H”: LED on (for function TUNER indicator)
68	LED-PHONO	O	LED drive signal output terminal “H”: LED on (for function PHONO indicator)
69	LED MUTE	O	LED drive signal output terminal “H”: LED on (for MUTING indicator)
70	LED-LEARNING	O	LED drive signal output terminal “H”: LED on Not used (open)
71	LED D.PASS	O	LED drive signal output terminal “H”: LED on (for DIRECT PASS indicator)
72	LED-INPUT	O	LED drive signal output terminal “H”: LED on Not used (open)
73	LED VOL	O	LED drive signal output terminal “H”: LED on (for MASTER VOLUME illumination)
74	LED BASS.B	O	LED drive signal output terminal “H”: LED on (for BASS BOOST indicator)
75	SP-A	I	Speaker select switch (S135) input terminal “H”: speaker A on
76	SP-B	I	Speaker select switch (S135) input terminal “H”: speaker B on
77	PW-SW	I	Power switch (S137) input terminal
78	LED-TV	O	LED drive signal output terminal “H”: LED on (for function TV/DBS (STR-DA80ES) or TV (TA-V88ES/VA80ES) indicator)
79	LED-LD	O	LED drive signal output terminal “H”: LED on (for function LD/DVD indicator)
80	—	I	Not used (fixed at “L”)

• DIGITAL BOARD IC3308 SN-PM4007A (DOLBY (AC-3) DEMODULATOR)

Pin No.	Pin Name	I/O	Function
1	GND	—	Ground terminal
2	VDD	—	Power supply terminal (+5V)
3	$\overline{\text{RESET}}$	I	Reset signal input from the master controller (IC3413) "L": reset
4	OSCON	I	Oscillation on/off control signal input terminal "H": on (fixed at "H")
5	DATA	I	Test terminal Not used (fixed at "L")
6	MCK	I	Test terminal Not used (fixed at "L")
7	MLTB	I	Test terminal Not used (fixed at "L")
8	IDST	O	Test terminal Not used (open)
9	IDCK	O	Test terminal Not used (open)
10	IDO	O	Test terminal Not used (open)
11	TM0	I	Test terminal Not used (fixed at "L")
12	ECCK	O	Test terminal Not used (open)
13	DEY	O	Test terminal Not used (open)
14	DRY	O	Test terminal Not used (open)
15	DRY	O	Test terminal Not used (open)
16	TM1	I	Test terminal Not used (fixed at "L")
17	A0	O	Address signal output to the S-RAM (IC3309)
18	A1	O	
19	A2	O	
20	A3	O	
21	A4	O	
22	A5	O	
23	TM2	I	Test terminal Not used (fixed at "L")
24	TM3	I	Test terminal Not used (fixed at "L")
25	XOUT	O	System clock output terminal Not used (open)
26	XIN	I	System clock input terminal Not used (fixed at "L")
27	NEXT	I	Test terminal Not used (fixed at "L")
28	GND	—	Ground terminal
29	VDD	—	Power supply terminal (+5V)
30	A6	O	Address signal output to the S-RAM (IC3309)
31	A7	O	Address signal output to the S-RAM (IC3309)
32	GND	—	Ground terminal
33	VDD	—	Power supply terminal (+5V)
34	A12	O	Address signal output to the S-RAM (IC3309)
35	A14	O	Address signal output to the S-RAM (IC3309)
36	WE	O	Write enable signal output to the S-RAM (IC3309) "L" active
37	A13	O	Address signal output to the S-RAM (IC3309)
38	A8	O	
39	A9	O	
40	GND	—	Ground terminal
41	A11	O	Address signal output to the S-RAM (IC3309)
42	OE	O	Output enable signal output to the S-RAM (IC3309) "L" active
43	A10	O	Address signal output to the S-RAM (IC3309)
44	D7	I/O	Two-way data bus with the S-RAM (IC3309)
45	D6	I/O	

Pin No.	Pin Name	I/O	Function
46	D5	I/O	Two-way data bus with the S-RAM (IC3309)
47	D4	I/O	
48	D3	I/O	
49	D2	I/O	
50	D1	I/O	
51	D0	I/O	
52	VDD	—	Power supply terminal (+5V)
53	GND	—	Ground terminal
54	TI1	I	Test terminal Not used (fixed at “H”)
55	VIN	I	VCXO input terminal (18.432 MHz)
56	VOUT	O	VCXO output terminal (18.432 MHz)
57	TI2	I	Test terminal Not used (fixed at “L”)
58	TI3	I	Test terminal Not used (fixed at “L”)
59	TLD8	I	Test terminal Not used (fixed at “L”)
60	TCK	I	Test terminal Not used (fixed at “L”)
61	TRP	O	Test terminal Not used (open)
62	TD0	O	Test terminal Not used (open)
63	PD0	O	Internal phase comparator output terminal
64	TI4	I	Test terminal Not used (fixed at “L”)
65	PDD15	I	PDO out control signal input terminal “L”: on
66	MUT0	O	Mute control signal output terminal “H”: mute on
67	TI5	I	Test terminal Not used (fixed at “L”)
68	VLDY	O	Test terminal Not used (open)
69	DASYO	O	Test terminal Not used (open)
70	DAOUT	O	Digital out signal output terminal (serial data stream output)
71	DAIN	I	Digital external input terminal Through out to DAOUT (pin ⑦⓪) when DASEL (pin ⑦②)is “H” Not used (open)
72	DASEL	I	Digital out selection terminal Fixed at “L”
73	TI8	I	Test terminal Not used (fixed at “L”)
74	C2F1	O	C2 error correction state monitor output terminal Outputs if corrected properly Not used (open)
75	C2F0	O	C2 error correction state monitor output terminal Outputs number of errors at C2 Not used (open)
76	C1F1	O	C1 error correction state monitor output terminal Outputs whether error is present at C1 Not used (open)
77	C1F0	O	C1 error correction state monitor output terminal Outputs number of errors at C1 Not used (open)
78	MUT1	I	Mute signal input terminal “H”: mute
79	VDD	—	Power supply terminal (+5V)
80	GND	—	Ground terminal
81	AVDD	—	Power supply terminal (+5V) (for analog system)
82	CPIN	I	Comparator input (+) terminal
83	CMIN	I	Comparator input (–) terminal
84	AGND	—	Ground terminal (for analog system)
85	TM4	I	Test terminal Not used (fixed at “L”)
86	VDD	—	Power supply terminal (+5V)
87	DIN	I	Test terminal Not used (fixed at “L”)

Pin No.	Pin Name	I/O	Function
88	DOUT	O	Comparator output terminal
89	DOUTB	O	Comparator inverted output terminal
90	CSM	O	Clock (9.216 MHz) output terminal Not used (open)
91	GND	—	Ground terminal
92	WINGT	O	Test terminal Not used (open)
93	SYST0	O	Test terminal Not used (open)
94	SYST1	O	Test terminal Not used (open)
95	ADST0	O	Test terminal Not used (open)
96	ADST1	O	Test terminal Not used (open)
97	TMS	I	Test terminal Not used (fixed at “L”)
98	BUNR1	I	Test terminal Not used (fixed at “L”)
99	AGND	—	Ground terminal (for analog system)
100	AVDD	—	Power supply terminal (+5V) (for analog system)

• DIGITAL BOARD IC3410 DSP56009FJ88F (DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Function
1	AGND	—	Ground terminal (for address bus buffer)
2	MCS0	O	Chip select signal output to the external RAM device Not used (open)
3	MCS3	O	Chip select signal output to the external RAM device Not used (open)
4	MA14	O	Address signal output to the external RAM device Not used (open)
5	MA13	O	Address signal output to the external RAM device Not used (open)
6	AVCC	—	Power supply terminal (+5V) (for address bus buffer)
7	MA12	O	Address signal output to the external RAM device Not used (open)
8	AGND	—	Ground terminal (for address bus buffer)
9	QVCC	—	Power supply terminal (+5V) (for internal logic)
10	QGND	—	Ground terminal (for internal logic)
11	MA11	O	Address signal output to the external RAM device Not used (open)
12	MA10	O	
13	MA9	O	
14	MA8	O	
15	AGND	—	Ground terminal (for address bus buffer)
16	MA7	O	Address signal output to the external RAM device Not used (open)
17	AVCC	—	Power supply terminal (+5V) (for address bus buffer)
18	MA6	O	Address signal output to the external RAM device Not used (open)
19	MA5	O	
20	MA4	O	
21	AGND	—	Ground terminal (for address bus buffer)
22	MA3	O	Address signal output to the external RAM device Not used (open)
23	MA2	O	
24	MA1	O	
25	MA0	O	
26	SCK	I	Serial data reading clock signal input from the master controller (IC3413)
27	EXTAL	I	Master clock signal input terminal (3MHz)
28	QVCC	—	Power supply terminal (+5V) (for internal logic)
29	QGND	—	Ground terminal (for internal logic)
30	PINIT	I	Initialize input for the PLL circuit (fixed at “L”)
31	PGND	—	Ground terminal (for PLL circuit)
32	PCAP	I	Connected to the external capacitor for PLL circuit filter
33	PVCC	—	Power supply terminal (+5V) (for PLL circuit)
34	SGND	—	Ground terminal (for serial port)
35	MISO	I	Communication data input from the master controller (IC3413)
36	$\overline{\text{RESET}}$	I	Reset signal input from the master controller (IC3413) “L”: reset
37	MODA	I	Mode selection terminal (fixed at “H”)
38	MODB	I	Mode selection terminal (fixed at “L”)
39	MODC	I	Mode selection terminal (fixed at “H”)
40	SVCC	—	Power supply terminal (+5V) (for serial port)
41	MOSI	O	Communication data output to the master controller (IC3413)
42	SS	I	SPI slave select signal input from the master controller (IC3413)
43	HREQ	I	Host request signal input from the master controller (IC3413)
44	SGND	—	Ground terminal (for serial port)
45	SDO2	O	Audio serial data output terminal Not used (open)

Pin No.	Pin Name	I/O	Function
46	SDO1	O	Audio serial data output to the digital signal processor (IC3412)
47	SDO0	O	Audio serial data output to the digital signal processor (IC3412)
48	SVCC	—	Power supply terminal (+5V) (for serial port)
49	SCKT	O	Audio serial data transfer clock signal output to the digital signal processor (IC3412)
50	WST	O	Word transmission output to the digital signal processor (IC3412)
51	SCKR	I	Bit clock signal (2.8224 MHz) input terminal
52	QGND	—	Ground terminal (for internal logic)
53	QVCC	—	Power supply terminal (+5V) (for internal logic)
54	SGND	—	Ground terminal (for serial port)
55	WSR	I	L/R sampling clock signal (44.1 kHz) input terminal
56	SDI1	I	Audio serial data input terminal
57	SDI0	I	Audio serial data input terminal
58	DSO	O	Debug serial data output terminal Not used (open)
59	DSI	I	Debug serial data input terminal Not used (open)
60	DSCK	I	Debug serial data reading clock signal input terminal Not used (open)
61	DR	I	Debug request signal input terminal Not used (fixed at “H”)
62	MD7	I/O	Two-way data bus with the external RAM device Not used (open)
63	MD6	I/O	
64	MD5	I/O	
65	MD4	I/O	
66	DGND	—	Ground terminal (for data bus buffer)
67	MD3	I/O	Two-way data bus with the external RAM device Not used (open)
68	MD2	I/O	
69	MD1	I/O	
70	DVCC	—	Power supply terminal (+5V) (for data bus buffer)
71	MD0	I/O	Two-way data bus with the external RAM device Not used (open)
72	DGND	—	Ground terminal (for data bus buffer)
73	GPIO3	I/O	General digital signal processor in/out terminal Not used (open)
74	GPIO2	I/O	
75	GPIO1	I/O	
76	GPIO0	I/O	
77	MRD	O	Write strobe signal output to the external RAM device Not used (open)
78	MWR	O	Read strobe signal output to the external RAM device Not used (open)
79	MRAS	O	Row address strobe signal output to the external RAM device Not used (open)
80	MCAS	O	Column address strobe signal output to the external RAM device Not used (open)

• DIGITAL BOARD IC3412 SSP424023FJ88 (DIGITAL SIGNAL PROCESSOR)

Pin No.	Pin Name	I/O	Function
1	AGND	—	Ground terminal (for address bus buffer)
2	MCS0	O	Chip select signal output to the external RAM device Not used (open)
3	MA15	O	Address signal output to the S-RAM (IC3411)
4	MA14	O	
5	MA13	O	
6	AVCC	—	Power supply terminal (+5V) (for address bus buffer)
7	MA12	O	Address signal output to the S-RAM (IC3411)
8	AGND	—	Ground terminal (for address bus buffer)
9	QVCC	—	Power supply terminal (+5V) (for internal logic)
10	QGND	—	Ground terminal (for internal logic)
11	MA11	O	Address signal output to the S-RAM (IC3411)
12	MA10	O	
13	MA9	O	
14	MA8	O	
15	AGND	—	Ground terminal (for address bus buffer)
16	MA7	O	Address signal output to the S-RAM (IC3411)
17	AVCC	—	Power supply terminal (+5V) (for address bus buffer)
18	MA6	O	Address signal output to the S-RAM (IC3411)
19	MA5	O	
20	MA4	O	
21	AGND	—	Ground terminal (for address bus buffer)
22	MA3	O	Address signal output to the S-RAM (IC3411)
23	MA2	O	
24	MA1	O	
25	MA0	O	
26	SCK	I	Serial data reading clock signal input from the master controller (IC3413)
27	EXTAL	I	Master clock signal input terminal (3MHz)
28	QVCC	—	Power supply terminal (+5V) (for internal logic)
29	QGND	—	Ground terminal (for internal logic)
30	PINIT	I	Initialize input for the PLL circuit (fixed at “L”)
31	PGND	—	Ground terminal (for PLL circuit)
32	PCAP	I	Connected to the external capacitor for PLL circuit filter
33	PVCC	—	Power supply terminal (+5V) (for PLL circuit)
34	SGND	—	Ground terminal (for serial port)
35	MISO	I	Communication data input from the master controller (IC3413)
36	$\overline{\text{RESET}}$	I	Reset signal input from the master controller (IC3413) “L”: reset
37	MODA	I	Mode selection terminal (fixed at “H”)
38	MODB	I	Mode selection terminal (fixed at “L”)
39	MODC	I	Mode selection terminal (fixed at “H”)
40	SVCC	—	Power supply terminal (+5V) (for serial port)
41	MOSI	O	Communication data output to the master controller (IC3413)
42	SS	I	SPI slave select signal input from the master controller (IC3413)
43	HREQ	I	Host request signal input from the master controller (IC3413)
44	SGND	—	Ground terminal (for serial port)
45	SDO2	O	Audio serial data output terminal (for rear side speaker)

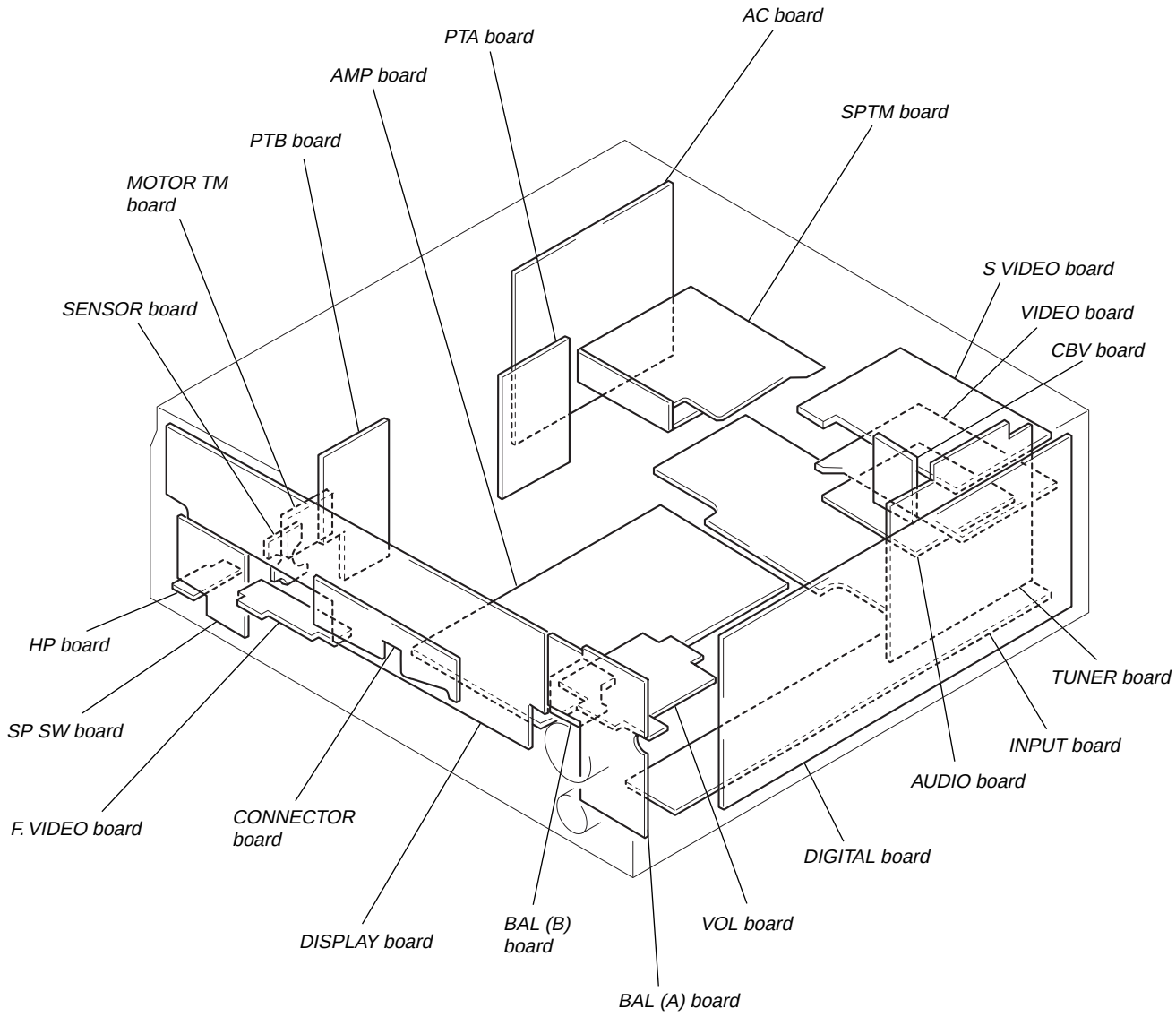
Pin No.	Pin Name	I/O	Function
46	SDO1	O	Audio serial data output terminal (for center side speaker)
47	SDO0	O	Audio serial data output terminal (for front side speaker)
48	SVCC	—	Power supply terminal (+5V) (for serial port)
49	SCKT	I	Bit clock signal (2.8224 MHz) input terminal
50	WST	I	L/R sampling clock signal (44.1 kHz) input terminal
51	SCKR	I	Audio serial data reading clock signal input from the digital signal processor (IC3410)
52	QGND	—	Ground terminal (for internal logic)
53	QVCC	—	Power supply terminal (+5V) (for internal logic)
54	SGND	—	Ground terminal (for serial port)
55	WSR	I	Word transmission input from the digital signal processor (IC3410)
56	SDI1	I	Audio serial data input from the digital signal processor (IC3410)
57	SDI0	I	Audio serial data input from the digital signal processor (IC3410)
58	DSO	O	Debug serial data output terminal Not used (open)
59	DSI	I	Debug serial data input terminal Not used (open)
60	DSCK	I	Debug serial data reading clock signal input terminal Not used (open)
61	DR	I	Debug request signal input terminal Not used (fixed at “H”)
62	MD7	I/O	Two-way data bus with the S-RAM (IC3411)
63	MD6	I/O	
64	MD5	I/O	
65	MD4	I/O	
66	DGND	—	Ground terminal (for data bus buffer)
67	MD3	I/O	Two-way data bus with the S-RAM (IC3411)
68	MD2	I/O	
69	MD1	I/O	
70	DVCC	—	Power supply terminal (+5V) (for data bus buffer)
71	MD0	I/O	Two-way data bus with the S-RAM (IC3411)
72	DGND	—	Ground terminal (for data bus buffer)
73	GPIO3	I/O	General digital signal processor in/out terminal Not used (open)
74	GPIO2	I/O	
75	GPIO1	I/O	
76	GPIO0	I/O	General digital signal processor in/out with the master controller (IC3413)
77	MRD	O	Write strobe signal output to the S-RAM (IC3411)
78	MWR	O	Read strobe signal output to the S-RAM (IC3411)
79	CS1	O	Chip select signal output to the external RAM device Not used (open)
80	MA16	O	Address signal output to the S-RAM (IC3411)

• DIGITAL BOARD IC3413 MB90641APF-G-104-BND (MASTER CONTROLLER)

Pin No.	Pin Name	I/O	Function
1	RFERR	I	RF demodulater error signal input terminal "H": error
2	RFRESET	O	RF demodulater reset signal output terminal "L": active
3	STOP	I	System stop signal input terminal "L": stop
4	RDATA	I	Data signal input from the digital audio interface receiver (IC3311)
5	WDATA	O	Data signal output to the digital audio interface receiver (IC3311)
6	DIRLAT	O	Latch pulse signal output to the digital audio interface receiver (IC3311)
7	DIRCLK	O	Clock signal output to the digital audio interface receiver (IC3311)
8	DIRERR	I	Error signal input from the digital audio interface receiver (IC3311)
9	ANG/DIG	O	Analog/Digital data select signal output to the selector (IC3414)
10	A/DINT	O	Initialize signal output to the A/D converter (IC3104)
11	Vss	—	Ground terminal
12	HREQ	I	Host request signal input from the digital signal processor (IC3410)
13	SS	O	SPI slave select signal output to the digital signal processor (IC3410)
14	MOSI	O	Communication data output to the digital signal processor (IC3410)
15	$\overline{\text{RESET}}$	O	Reset signal output to the digital signal processor (IC3410)
16	MISO	I	Communication data input from the digital signal processor (IC3410)
17	CLOCK	O	Serial data reading clock signal output to the digital signal processor (IC3410)
18	HREQ	I	Host request signal input from the digital signal processor (IC3412)
19	SS	O	SPI slave select signal output to the digital signal processor (IC3412)
20	MOSI	O	Communication data output to the digital signal processor (IC3412)
21	$\overline{\text{RESET}}$	O	Reset signal output to the digital signal processor (IC3412)
22	MISO	I	Communication data input from digital signal processor (IC3412)
23	VCC	—	Power supply terminal (+5 V)
24	CLOCK	O	Serial data reading clock signal output to the digital signal processor (IC3412)
25	D/AINT	O	Initialize signal output to the digital filter (IC3401-3403)
26	D/ALAT	O	Latch pulse signal output to the digital filter (IC3401-3403)
27	C	—	Connect capacitor
28	D/ACLK	O	Serial data reading clock signal output to the digital filter (IC3401-3403)
29	D/ADATA	O	Data signal output to the digital filter (IC3401-3403)
30	SRCINI	O	Initialize signal output Not used (open)
31	D/A8DAT	O	8bit data signal output to the D/A converter Not used (open)
32	D/A8CLK	O	8bit serial data reading clock signal output to the D/A converter Not used (open)
33	D/A8LAT	O	8bit latch pulse signal output to the D/A converter Not used (open)
34, 35	VCC	—	Power supply terminal (+5 V)
36, 37	VSS	—	Ground terminal
38	LOW-FRQ-IED	I	General digital signal input from digital signal processor (IC3412)
39	GAIN-FRONT-8DB	O	Front out +8 dB signal output terminal "H": active
40	GAIN-FRONT-4DB	O	Front out +4 dB signal output terminal "H": active
41	GAIN-FRONT-2DB	O	Front out +2 dB signal output terminal "H": active
42	VSS	—	Ground terminal
43-47	N.C.	—	Not used (open)
48	STOPIN	I	Power check signal input terminal "L": error
49	MD0	I	Mode set terminal (fixed at "H")
50	MD1	I	Mode set terminal (fixed at "H")
51	MD2	I	Mode set terminal (fixed at "L")

Pin No.	Pin Name	I/O	Function
52	STANDBY	I	Stand by signal input terminal (Fixed at “H”)
53	N.C.	—	Not used (open)
54	DISPMR	I	Communication request signal input from the FL drive controller (IC105)
55	DISPDATA	I	Serial data signal input from the FL drive controller (IC105)
56	SLVDATA/REQ	O	Communication request signal output to the FL drive controller (IC105)
57	DISPCLK	I	Serial data reading clock signal input from the FL drive controller (IC105)
58	LAT	O	Latch pulse signal output to the audio selector (IC202, 291)
59	DATA	O	Data signal output to the audio selector (IC202, 291)
60	CLK	O	Serial data reading clock signal output to the audio selector (IC202, 291)
61	DATAIN	I	PLL data signal input from the tuner unit (FE201) (STR-DA80ES only)
62	AUTSTOP	I	PLL auto stop signal input from the tuner unit (FE201) (STR-DA80ES only)
63	STEREO	I	PLL stereo signal input from the tuner unit (FE201) (STR-DA80ES only)
64, 65	N.C.	—	Not used (open)
66	HIFI/ES	I	Not used (Fixed at “L”)
67	PROTEC	I	Amp output protect signal input terminal “L”: protect
68	VIDEO-A	O	Video input select signal “A” output to video input selector (IC803, 804, 811)
69	VIDEO-B	O	Video input select signal “B” output to video input selector (IC803, 804, 811)
70	VIDEO-E	O	Video input select signal “E” output to video input selector (IC803, 804, 811)
71	VIDEO-INH	O	Video monitor protect signal output terminal “L”: protect (TA-V88ES/VA80ES only)
72	FUNMUTE	O	Input mute signal output terminal
73	TUNERMUTE	O	Tuner mute signal output to the tuner unit (FE201) (STR-DA80ES only)
74	SURR-MUTE	O	Surround mute signal output terminal
75	ALLMUTE	O	All mute signal output terminal Not used (open)
76	RM-MUTE	O	Signal level –20 dB mute signal output terminal
77	RESET	O	System reset signal output to the FL drive controller (IC105)
78	RY-FRONT/A	O	Front speakers “A” ON/OFF relay control signal output terminal “H”: on
79	RY-FRONT/B	O	Front speakers “B” ON/OFF relay control signal output terminal “H”: on
80	RY-FRONT	O	Front speakers ON/OFF relay control signal output terminal Not used (open)
81	VSS	—	Ground terminal
82	XO	O	System clock signal output terminal (4 MHz)
83	XIN	I	System clock signal input terminal (4 MHz)
84	VCC	—	Power supply terminal (+5 V)
85	RY-PREAMP	O	Pre out ON/OFF relay control signal output terminal “H”: on
86	RY-CENTER	O	Center speaker ON/OFF relay control signal output terminal “H”: on
87	RY-REAR	O	Rear speakers ON/OFF relay control signal output terminal “H”: on
88	RY-HP	O	Headphone ON/OFF relay control signal output terminal “H”: on
89	RY-4/8	O	Speaker impedance select relay control signal output terminal “H”: 4 Ω
90	RY-POWER	O	Power ON/OFF relay control signal output terminal “H”: on
91-93	N.C.	—	Not used (open)
94	RY-DIRECT-PASS	O	Direct-pass relay control sinal output terminal “L”: pass
95	RY-HD	O	Rear, center direct-pass relay control signal output terminal Not used (open)
96, 97	N.C.	—	Not used (open)
98	DIG-IN2	O	Digital input select signal “C” output to the optical in select switch (IC3313)
99	DIG-IN1	O	Digital input select signal “B” output to the optical in select switch (IC3313)
100	DIG-IN0	O	Digital input select signal “A” output to the optical in select switch (IC3313)

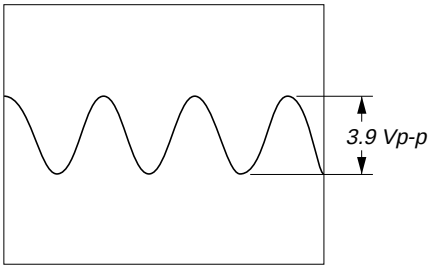
• Circuit Boards Loction



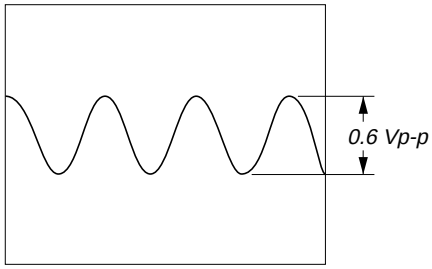
• Waveforms

– DISPLAY SECTION –

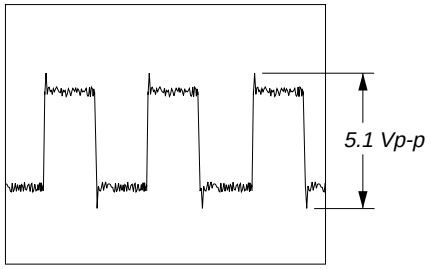
❶ IC105 ㊹ 4 MHz



❺ IC3402, 3403 ⑩ 48.5 MHz

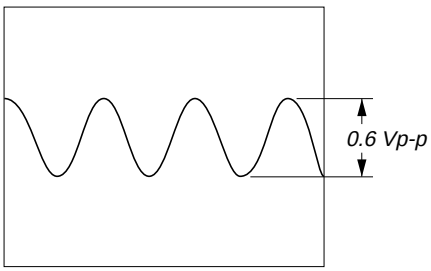


❾ IC3108 ④
IC3425 ①, ③ 3.1 MHz

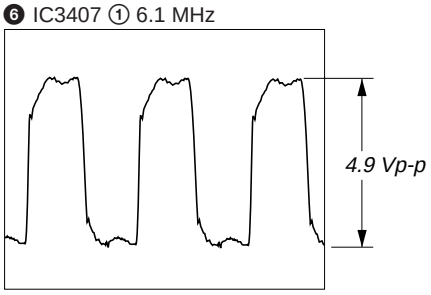


– DIGITAL SECTION –

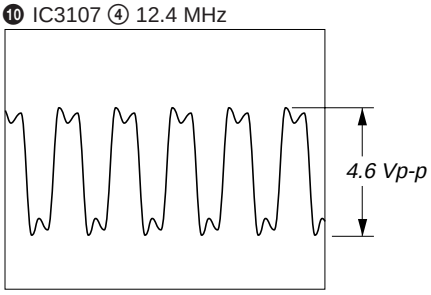
❷ IC3401 ⑩ 49 MHz



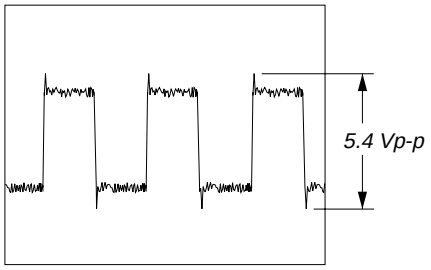
❻ IC3407 ① 6.1 MHz



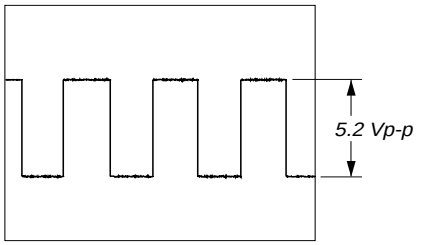
❿ IC3107 ④ 12.4 MHz



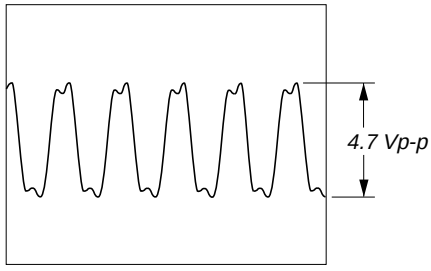
❸ IC3401-3403 ㊳
IC3410 ㊶
IC3414 ⑦
IC3417 ⑥ 3.1 MHz



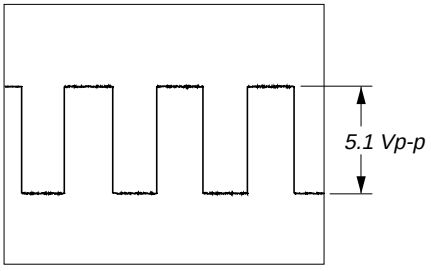
❼ IC3409 ⑦
IC3410 ㊺
IC3412 ㊿ 48.1 kHz



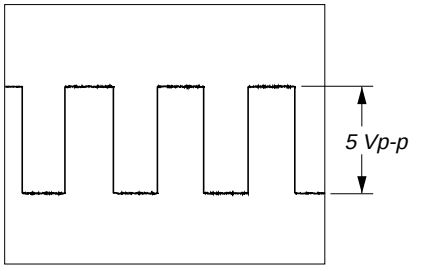
⓫ IC3104 ⑰ 12.2 MHz



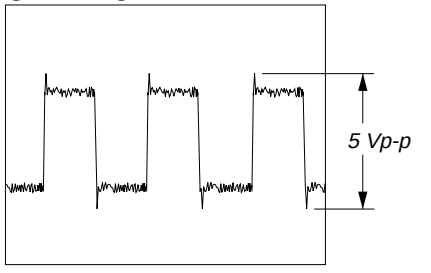
❹ IC3401-3403 ㊴
IC3414 ④
IC3417 ⑧ 48.1 kHz



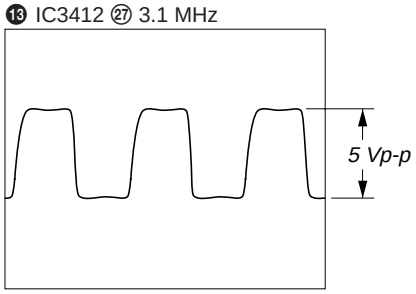
❽ IC3104 ⑬
IC3108 ⑧
IC3409 ⑧ 48.1 kHz



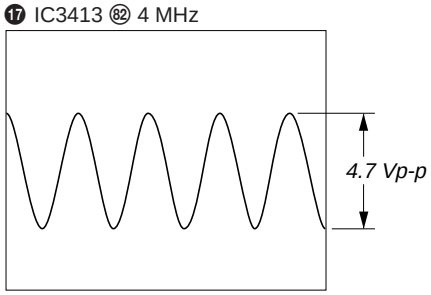
⓬ IC3104 ⑭ 3.1 MHz



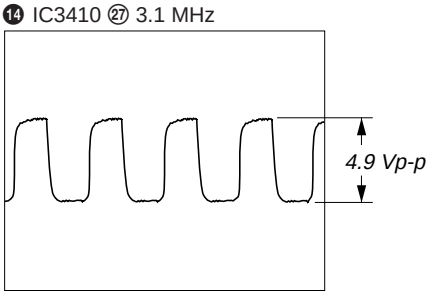
⓭ IC3412 ㉗ 3.1 MHz



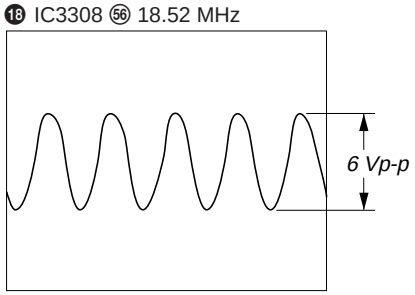
⓱ IC3413 ㉜ 4 MHz



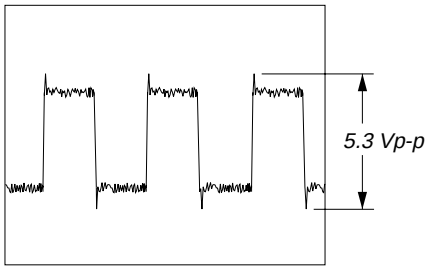
⓮ IC3410 ㉗ 3.1 MHz



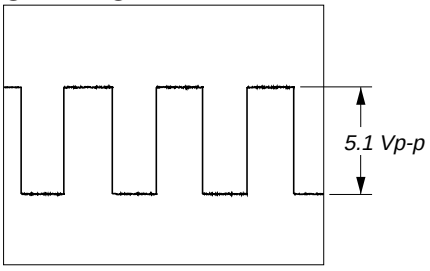
⓲ IC3308 ㊻ 18.52 MHz



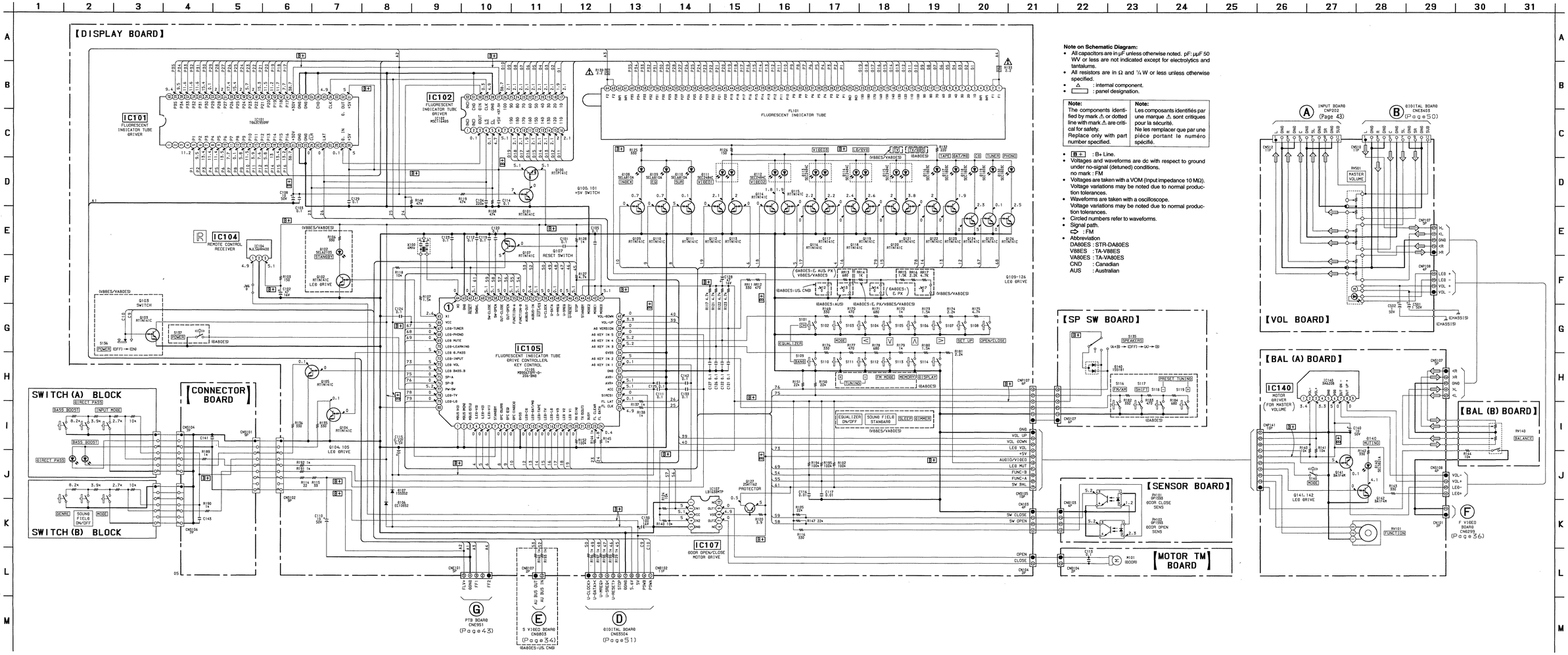
⓯ IC3311 ㉑ 3.7 MHz



⓰ IC3311 ㉒ 58.1 kHz



4-2. SCHEMATIC DIAGRAM – DISPLAY Section – • See page 22 for Waveforms. • See page 65 for IC Block Diagrams.


【DISPLAY BOARD】
IC101
FLUORESCENT INDICATOR TUBE DRIVER
IC102
FLUORESCENT INDICATOR TUBE DRIVER
FL101
FLUORESCENT INDICATOR TUBE
IC104
REMOTE CONTROL RECEIVER
IC105
FLUORESCENT INDICATOR TUBE DRIVE CONTROLLER, KEY CONTROL
IC107
DOOR OPEN/CLOSE MOTOR DRIVE
Q101-103 +5V SWITCH
Q104-105 LED DRIVE
Q106 RESET SWITCH
Q107 LED DRIVE
Q109-126 LED DRIVE
SWITCH (A) BLOCK
SWITCH (B) BLOCK
【CONNECTOR BOARD】
【SP SW BOARD】
【SENSOR BOARD】
【MOTOR TM BOARD】
【VOL BOARD】
【BAL (A) BOARD】
【BAL (B) BOARD】
IC140
MOTOR DRIVER (FOR MASTER VOLUME)
Note on Schematic Diagram:
All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantaliums.
All resistors are in Ω and ¼ W or less unless otherwise specified.
△ : internal component.
: panel designation.
Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.
Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
B+ : B+ Line.
Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions. no mark : FM
Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
Circled numbers refer to waveforms.
Signal path.
: FM
Abbreviation
DA80ES : STR-DA80ES
V88ES : TA-V88ES
VA80ES : TA-VA80ES
CND : Canadian
AUS : Australian

4-3. PRINTED WIRING BOARDS – DISPLAY Section –

• See page 21 for Circuit Boards Location.

• **Semiconductor Location**

Ref. No.	Location
D102	F-14
D106	E-6
D107	F-8
D108	F-6
D109	F-6
D110	F-6
D111	B-14
D112	B-13
D113	B-12
D114	B-11
D115	B-10
D116	B-9
D117	B-8
D118	B-7
D119	B-6
D130	B-5
D140	E-2
D140	J-15
IC101	G-11
IC102	F-9
IC104	F-7
IC105	G-8
IC107	C-16
IC140	H-1
Q100	C-10
Q101	C-10
Q102	F-14
Q103	F-17
Q104	G-9
Q105	G-9
Q107	H-8
Q109	G-7
Q110	F-7
Q111	F-7
Q112	B-14
Q113	B-14
Q114	B-14
Q115	B-15
Q116	B-12
Q117	B-12
Q118	B-11
Q119	B-12
Q120	B-10
Q121	B-11
Q122	B-10
Q123	B-8
Q124	B-8
Q125	B-6
Q126	B-6
Q127	C-16
Q141	H-1
Q142	E-3

Note on Printed Wiring Board:

- ⟷ : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ○ : Through hole.
- ▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:

Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  CND : Canadian
  AUS : Australian

【VOL BOARD】

【BAL (A) BOARD】

【BAL (B) BOARD】

【DISPLAY BOARD】(COMPONENT SIDE)

【DISPLAY BOARD】(CONDUCTR SIDE)

【CONNECTOR BOARD】(COMPONENT SIDE)

【CONNECTOR BOARD】(CONDUCTOR SIDE)

【SP SW BOARD】

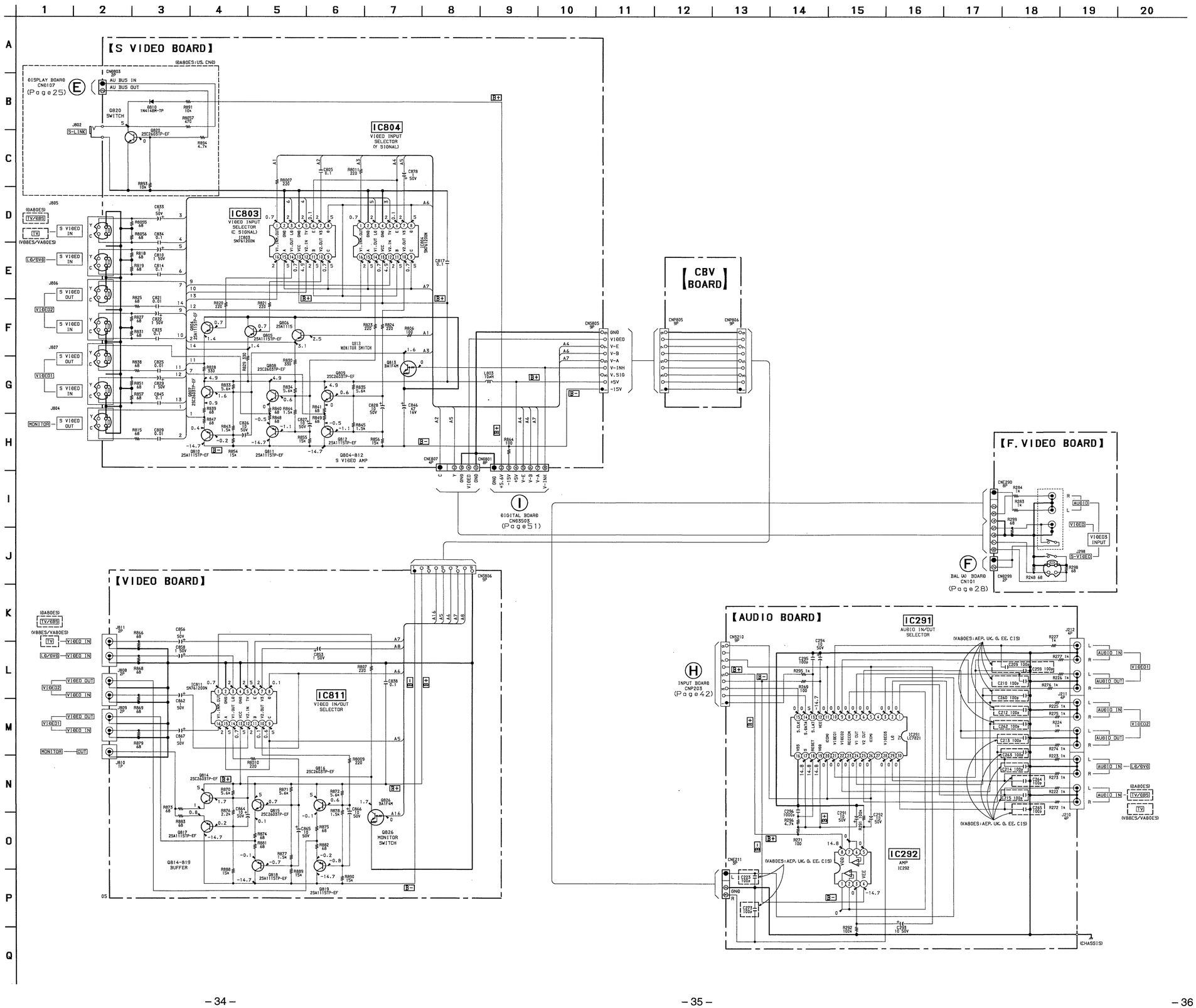
【MOTOR TM BOARD】

【SENSOR BOARD】

SWITCH(A)BLOCK

SWITCH(B)BLOCK

4-4. SCHEMATIC DIAGRAM – VIDEO Section – • See page 67 for IC Block Diagrams.

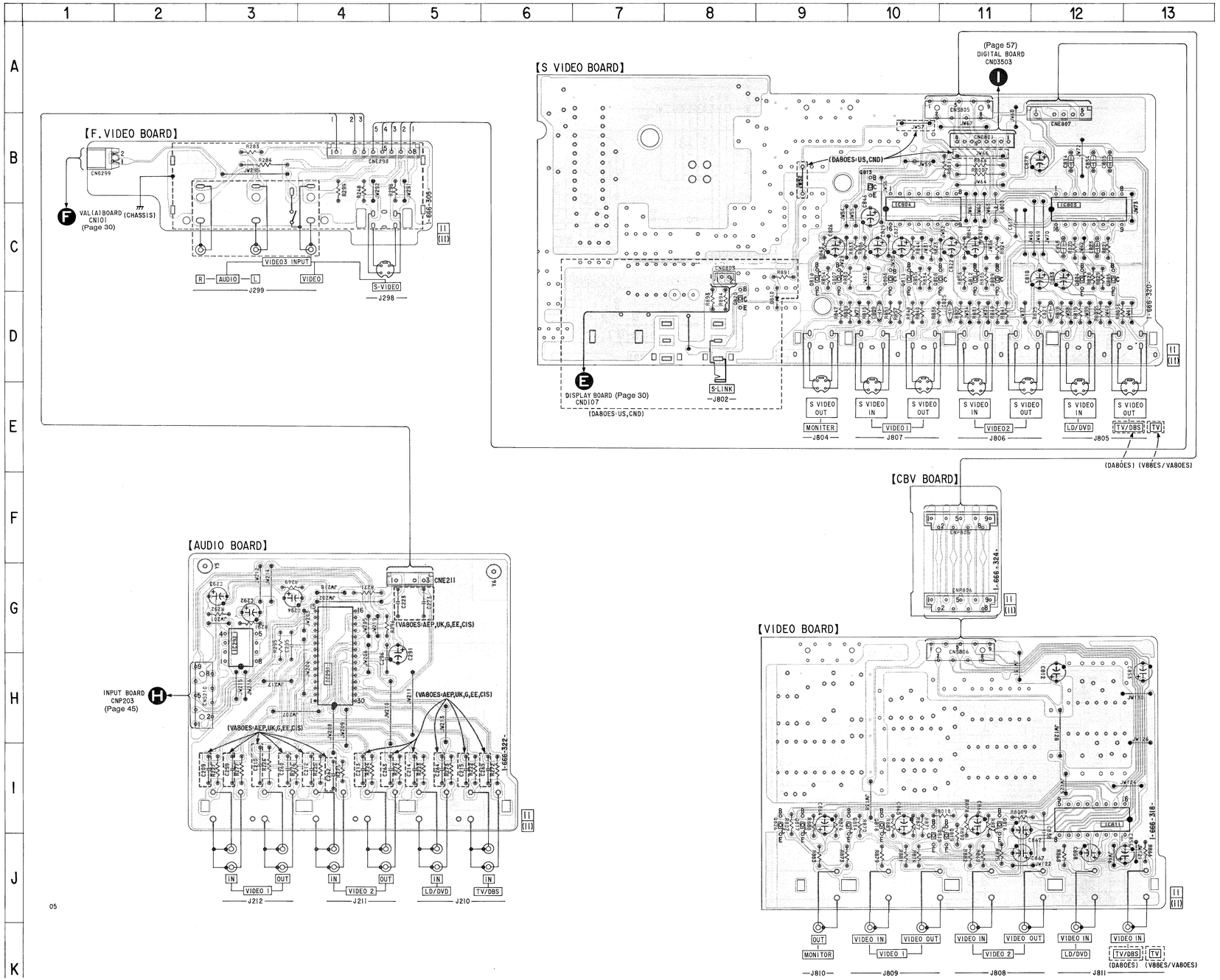


Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭ : panel designation.
- B+ : B+ Line.
- B− : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  CND : Canadian
  EE : East European
  G : German

4-5. PRINTED WIRING BOARDS – VIDEO Section –

• See page 21 for Circuit Boards Location.



05

• Semiconductor Location

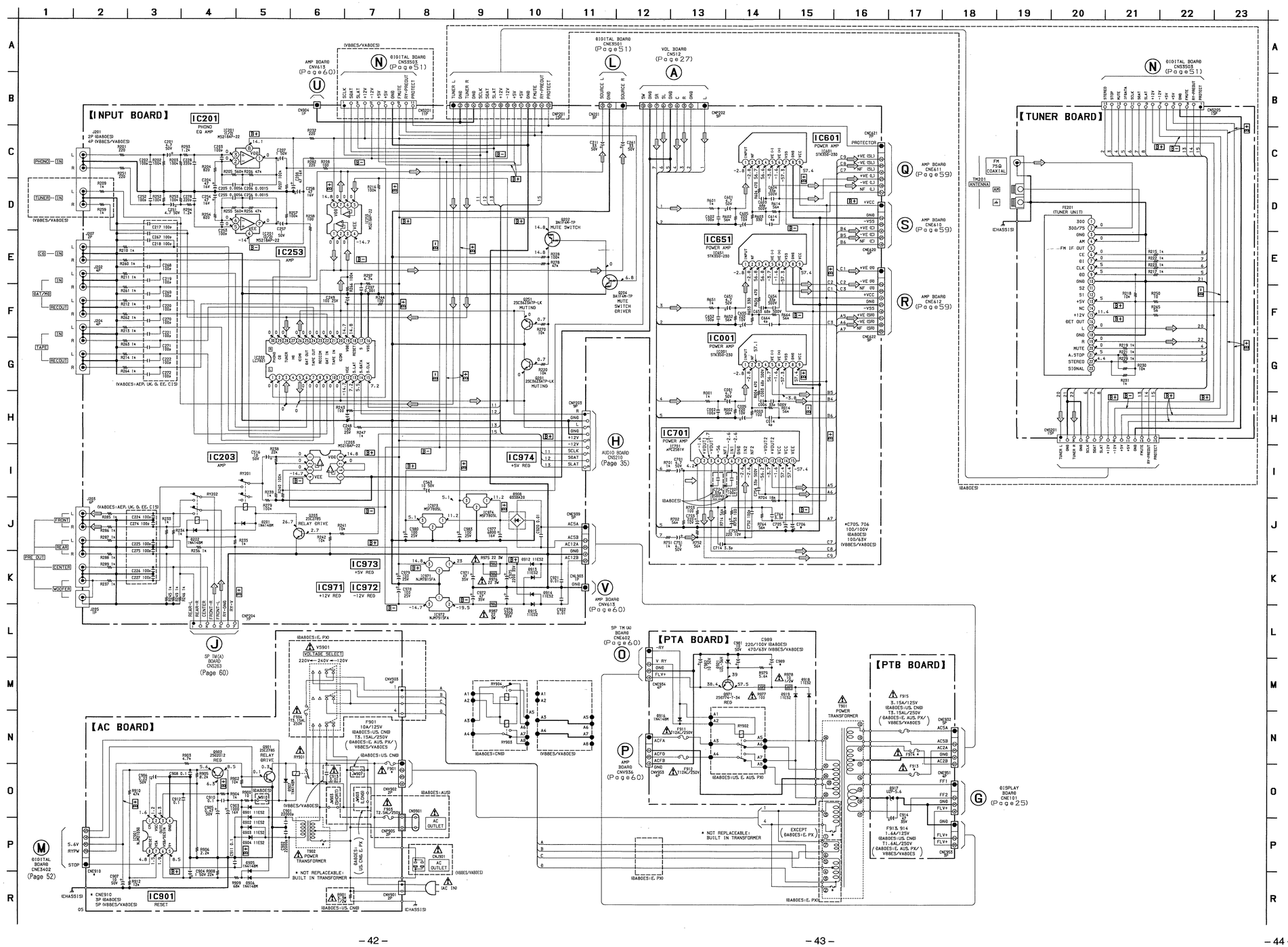
Ref. No.	Location
D810	D-9
IC291	H-4
IC292	G-3
IC803	C-12
IC804	C-10
IC811	I-12
Q804	C-12
Q805	C-12
Q806	C-10
Q807	C-9
Q808	C-11
Q809	C-11
Q810	C-9
Q811	C-10
Q812	C-11
Q813	B-10
Q814	I-10
Q815	J-10
Q816	I-11
Q817	I-9
Q818	I-10
Q819	J-11
Q820	D-8
Q826	I-9

Note on Printed Wiring Board:

- ⟷ : parts extracted from the component side.
- ▒▒ : Pattern from the side which enables seeing.
- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  CND : Canadian
  EE : East European
  G : German

4-6. SCHEMATIC DIAGRAM – INPUT/TUNER/POWER Section –

• See page 68 for IC Block Diagrams.



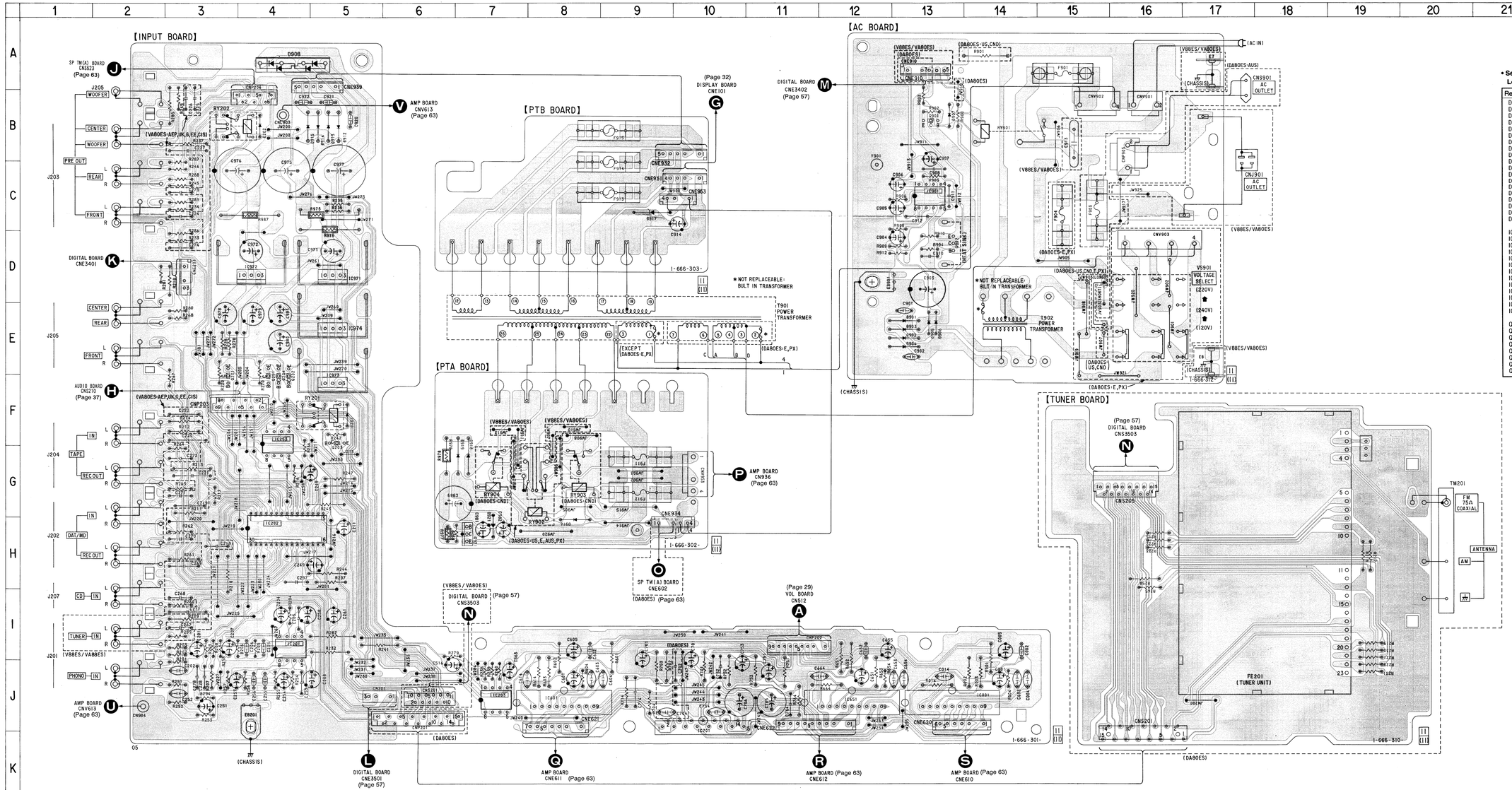
Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- : nonflammable resistor.
- : panel designation.

Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- : B+ Line.
- : B- Line.
- Voltages are dc with respect to ground under no-signal (detuned) conditions. no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path. : FM
- Abbreviation
  DA8ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  CND : Canadian
  AUS : Australian
  EE : East European
  G : German

4-7. PRINTED WIRING BOARDS – INPUT/TUNER/POWER Section – • See page 21 for Circuit Boards Location.



• **Semiconductor Location**

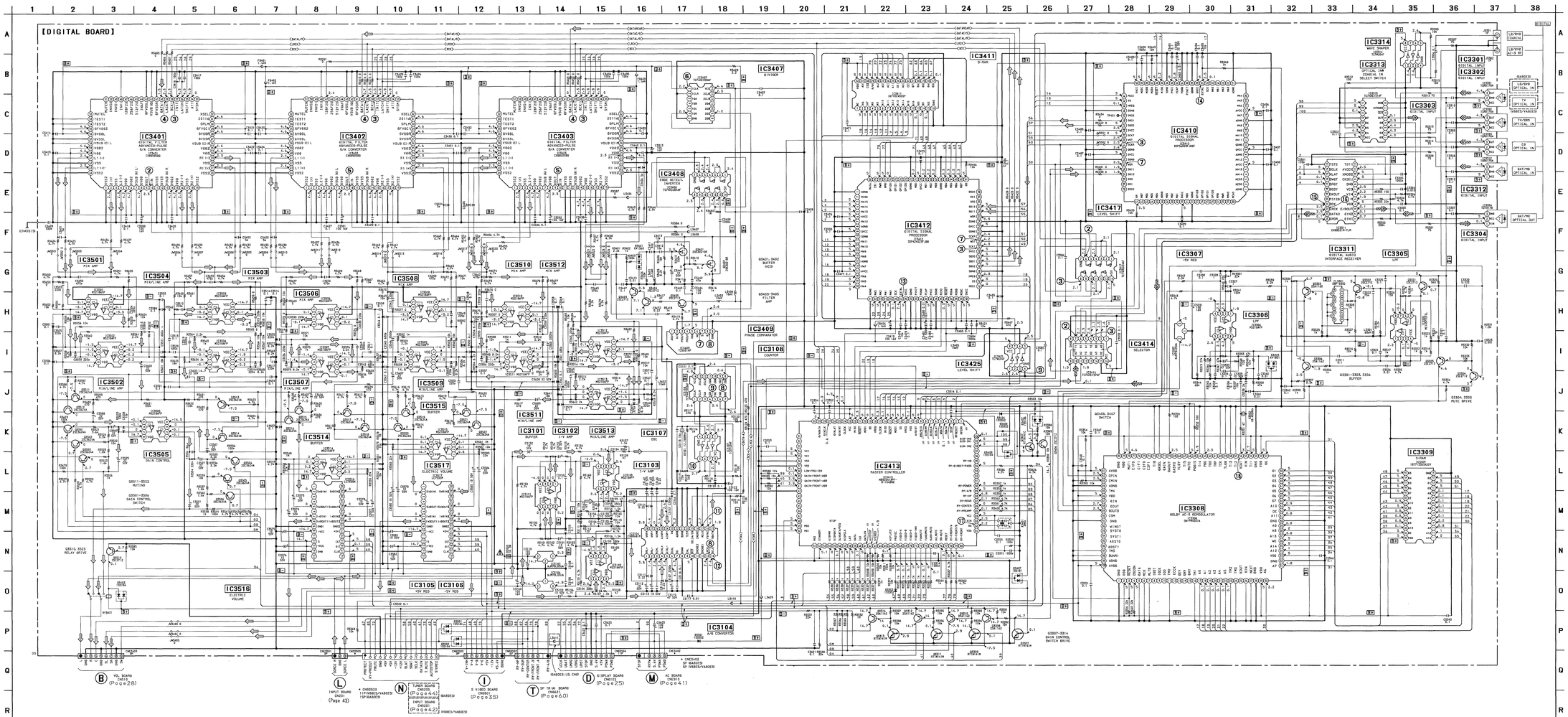
Ref. No.	Location
D201	F-5
D202	B-4
D901	E-13
D902	E-13
D903	E-13
D904	E-13
D905	E-13
D906	E-13
D907	B-13
D908	A-4
D912	B-5
D913	B-5
D914	B-5
D915	B-4
D916	H-8
D917	C-9
D918	G-7
D919	G-7
D921	H-7
IC001	J-13
IC201	I-4
IC202	H-4
IC203	J-7
IC253	F-4
IC601	J-8
IC651	J-12
IC701	J-10
IC901	C-13
IC971	D-5
IC972	D-4
IC973	F-5
IC974	E-5
Q201	F-3
Q202	F-4
Q203	F-5
Q204	F-4
Q251	F-4
Q901	B-13
Q902	D-13
Q971	H-7

Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ▨▨▨ : Pattern from the side which enables seeing.
- Abbreviation
  - DA80ES : STR-DA80ES
  - V88ES : TA-V88ES
  - VA80ES : TA-VA80ES
  - CND : Canadian
  - AUS : Australian
  - EE : East European
  - G : German

4-8. SCHEMATIC DIAGRAM – DIGITAL Section –

• See page 22 for Waveforms. • See page 65 for IC Block Diagrams.



Note on Schematic Diagram:

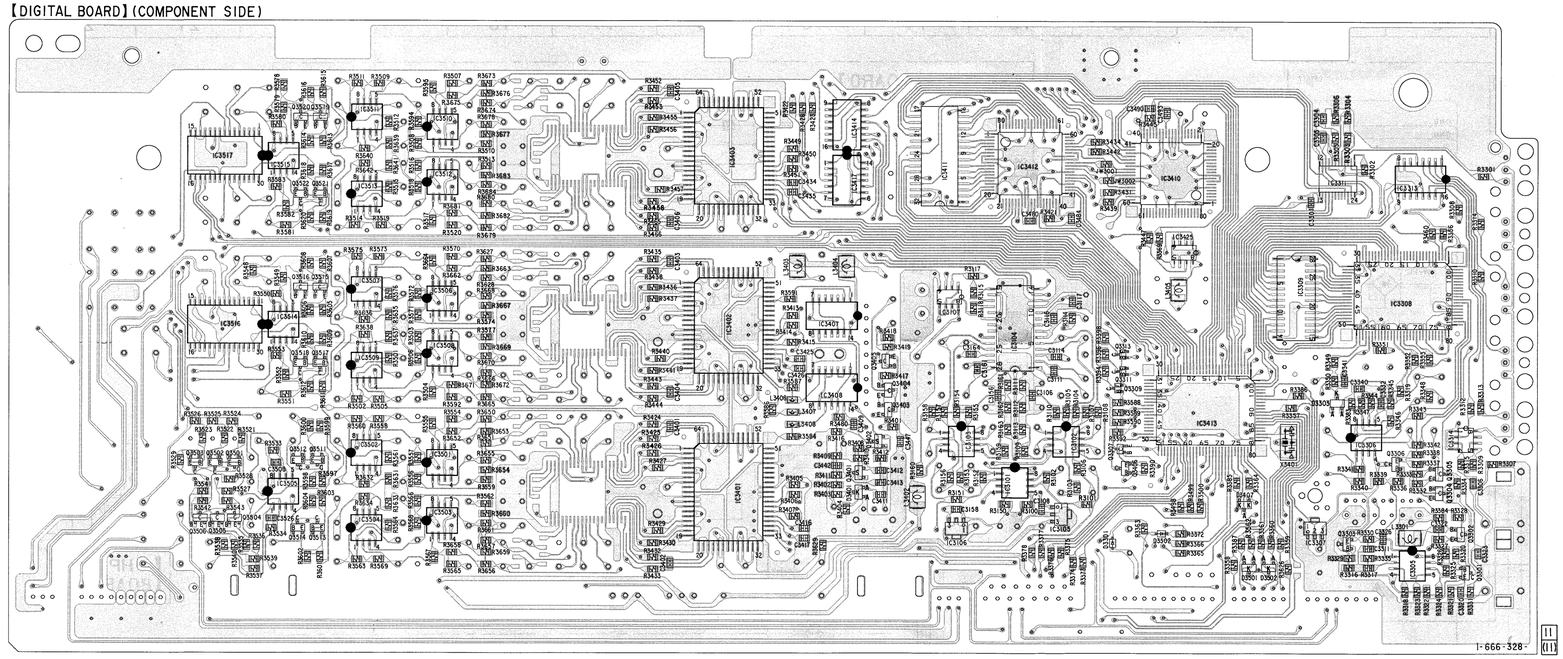
- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	Note:
The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

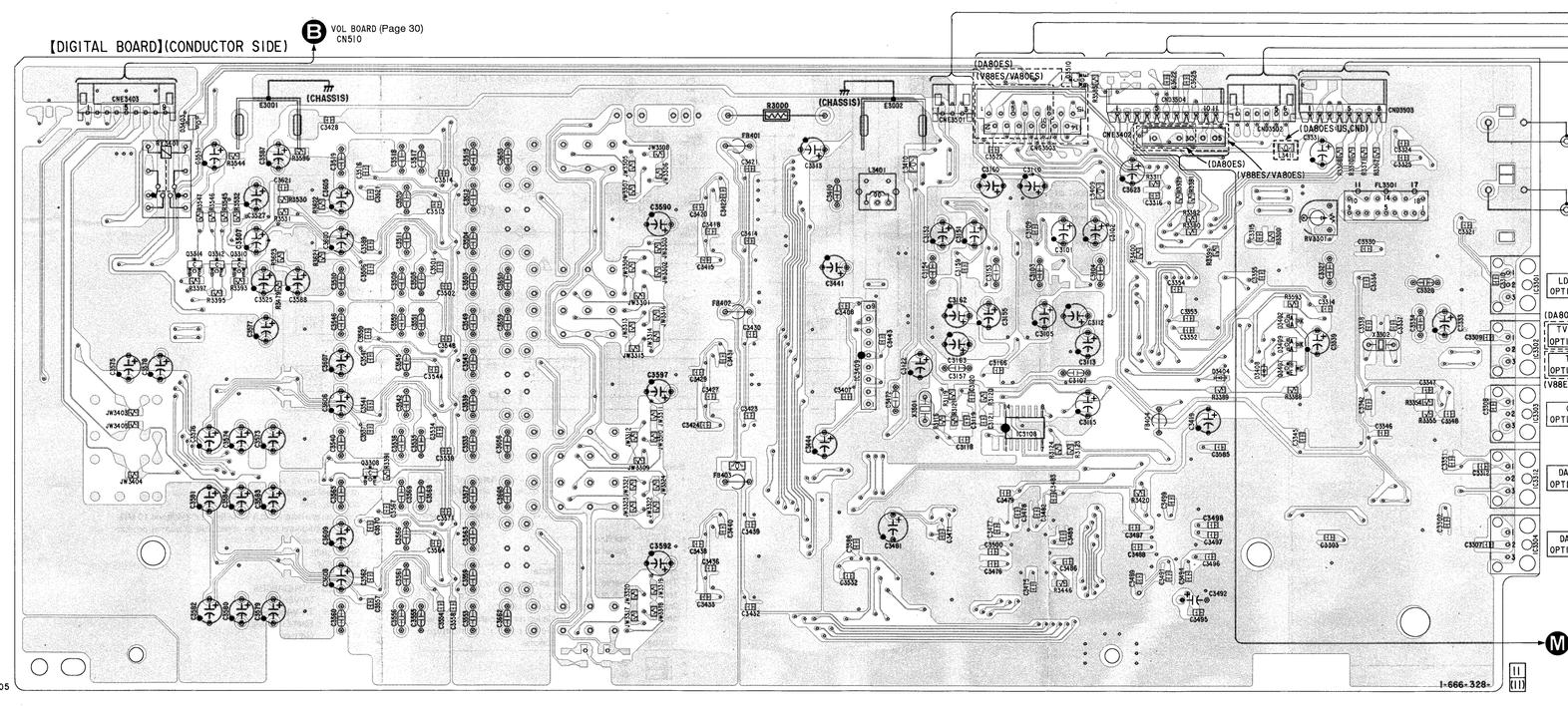
- B+ : B+ Line.
- B- : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : FM
  ⇨ : digital (optical) in/out
- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES

4-9. PRINTED WIRING BOARDS – DIGITAL Section – • See page 21 for Circuit Boards Location.

【DIGITAL BOARD】(COMPONENT SIDE)



【DIGITAL BOARD】(CONDUCTOR SIDE)



L INPUT (Page 46) BOARD CN201

N (DA80ES) TUNER BOARD CNS205 (Page 48) / (V88ES/VA80ES) INPUT BOARD CNS201 (Page 46)

D DISPLAY BOARD CND102 (Page 30)

T SP TM(A) BOARD CND621 (Page 63)

I S VIDEO BOARD CND801 (Page 39)

B VOL BOARD (Page 30) CN510

M AC BOARD CNE910 (Page 47)

J3302 LD/DVD AC-3 RF

J3301 LD/DVD COAXIAL

LD/DVD OPTICAL IN

(DA80ES) TV/DBS OPTICAL IN

TV OPTICAL IN (V88ES/VA80ES)

DIGITAL

CD OPTICAL IN

DAT/MD OPTICAL IN

DAT/MD OPTICAL OUT

• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D3301	E-10	IC3507	C-4
D3302	E-10	IC3508	C-4
D3303	D-12	IC3509	D-4
D3401	E-8	IC3510	B-4
D3402	I-11	IC3511	A-4
D3403	G-2	IC3512	B-4
D3404	I-11	IC3513	B-4
D3407	E-11	IC3514	C-3
D3408	I-11	IC3515	B-3
D3409	I-11	IC3516	C-3
D3501	E-11	IC3517	B-2
D3502	E-11		
		Q3301	E-13
IC3101	E-9	Q3302	E-13
IC3102	D-9	Q3303	E-12
IC3103	E-12	Q3304	E-12
IC3104	C-9	Q3305	D-12
IC3105	E-9	Q3306	D-12
IC3106	E-9	Q3307	D-10
IC3107	C-8	Q3308	J-4
IC3108	J-9	Q3309	D-10
IC3301	H-13	Q3310	H-3
IC3302	I-13	Q3311	D-10
IC3303	I-13	Q3312	H-2
IC3304	K-13	Q3313	C-10
IC3305	E-12	Q3314	H-2
IC3306	D-12	Q3401	D-8
IC3307	E-11	Q3402	D-8
IC3308	C-12	Q3403	D-8
IC3309	C-11	Q3404	D-8
IC3311	B-12	Q3405	D-8
IC3312	J-13	Q3406	D-10
IC3313	B-12	Q3407	E-11
IC3314	D-13	Q3501	D-3
IC3401	E-7	Q3502	D-2
IC3402	C-7	Q3503	D-2
IC3403	B-7	Q3504	E-3
IC3407	C-7	Q3505	E-2
IC3408	D-7	Q3506	E-2
IC3409	I-8	Q3510	G-9
IC3410	B-10	Q3511	D-3
IC3411	B-8	Q3512	D-3
IC3412	B-9	Q3513	E-3
IC3413	D-11	Q3514	E-3
IC3414	B-8	Q3515	C-3
IC3417	B-8	Q3516	C-3
IC3425	C-10	Q3517	C-3
IC3501	D-4	Q3518	C-3
IC3502	D-4	Q3519	A-3
IC3503	E-4	Q3520	A-3
IC3504	E-4	Q3521	B-3
IC3505	E-3	Q3522	B-3
IC3506	C-4		

Note on Printed Wiring Board:

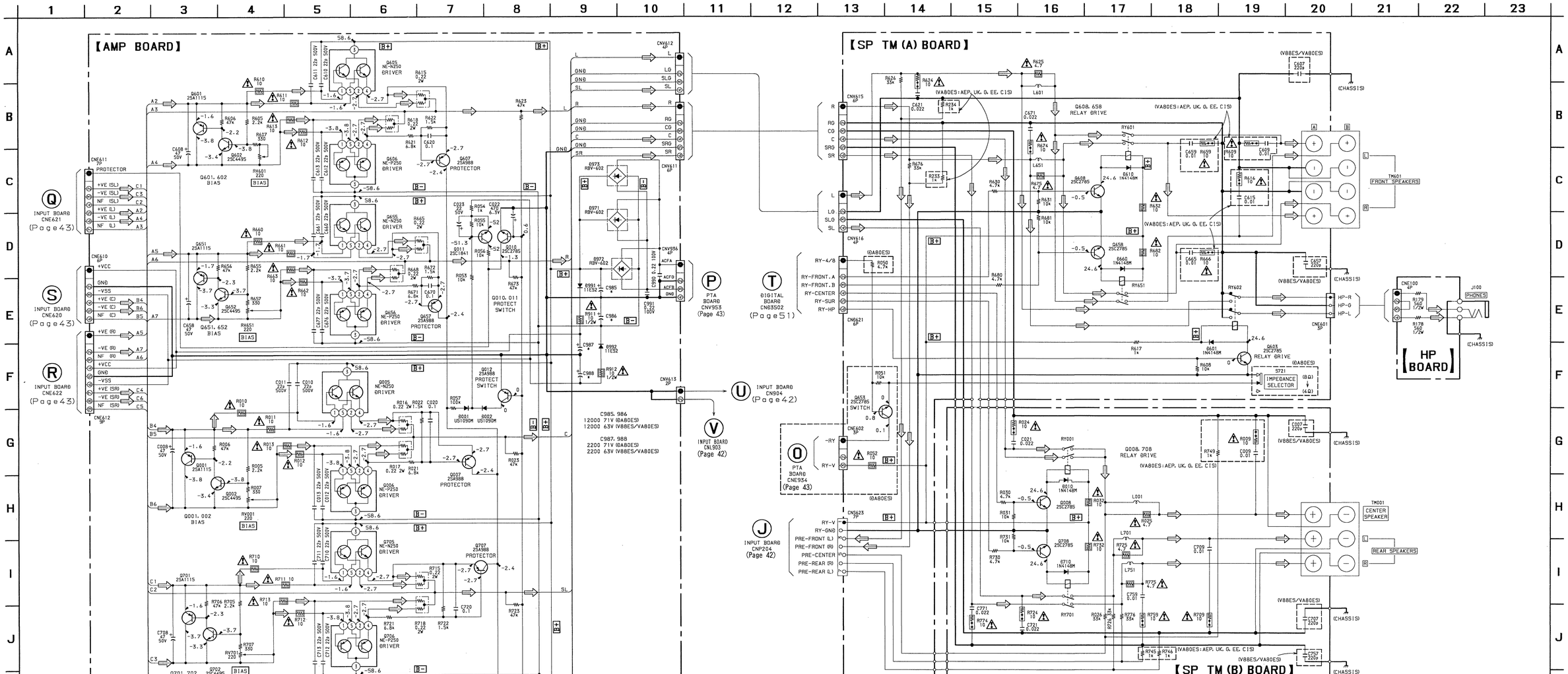
- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- △ : internal component.
- ▨ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:
Pattern face side: (Conductor Side) Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side) Parts on the parts face side seen from the parts face are indicated.

- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  CND : Canadian

4-10. SCHEMATIC DIAGRAM – AMP/OUTPUT Section –



Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼ W or less unless otherwise specified.
- ▭ : nonflammable resistor.
- ▭ : panel designation.

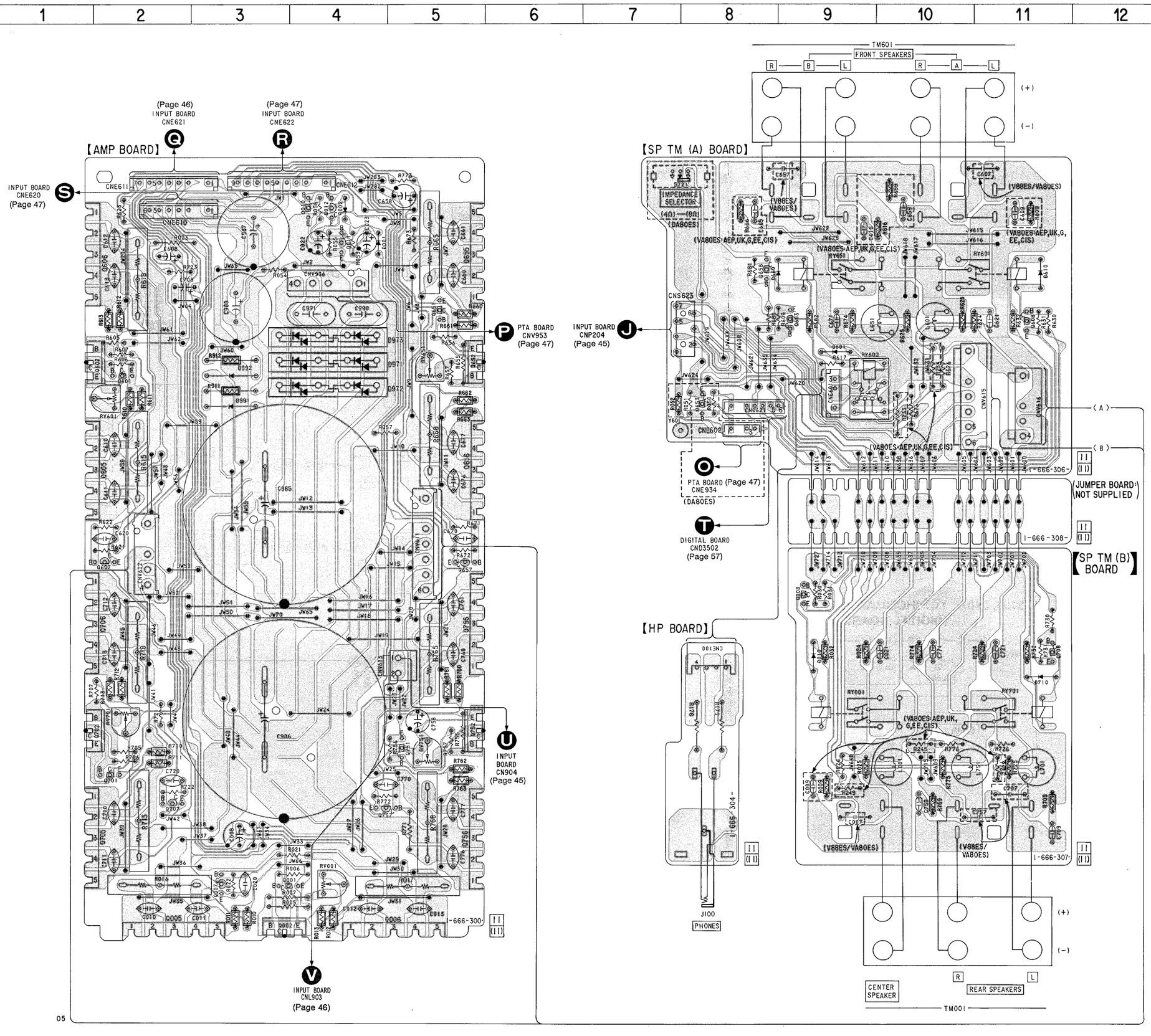
Note:	Note:
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- B+ : B+ Line.
- B− : B- Line.

- Voltages are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : FM
- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  EE : East European
  G : German
  MY : Malaysia
  SP : Singapore

4-11. PRINTED WIRING BOARDS – AMP/OUTPUT Section –

• See page 21 for Circuit Boards Location.



• **Semiconductor Location**

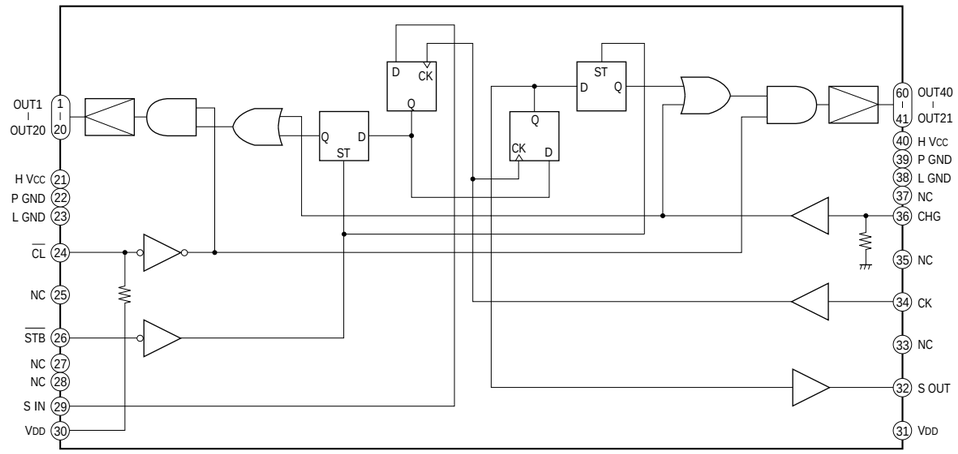
Ref. No.	Location
D001	C-4
D002	B-4
D010	G-9
D601	D-9
D610	C-11
D660	C-8
D710	G-11
D971	D-5
D972	D-5
D973	D-5
D991	D-3
D992	D-3
Q001	I-4
Q002	J-3
Q005	J-2
Q006	J-5
Q007	J-3
Q008	F-9
Q010	B-4
Q011	C-4
Q012	B-4
Q601	D-2
Q602	D-2
Q603	D-9
Q605	E-2
Q606	C-2
Q607	F-2
Q608	D-11
Q651	C-5
Q652	D-5
Q653	D-8
Q655	C-5
Q656	E-5
Q657	F-5
Q658	C-8
Q701	H-2
Q702	H-2
Q705	I-2
Q706	G-2
Q707	I-2
Q708	G-11
Q751	H-5
Q752	H-5
Q755	G-5
Q756	I-5
Q757	I-5

Note on Printed Wiring Board:

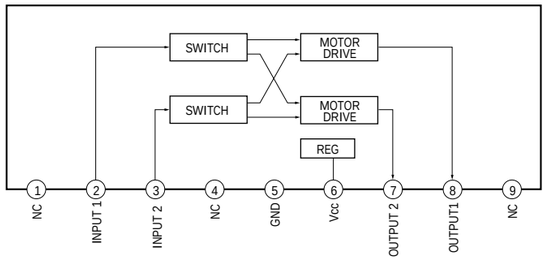
- ⟜——: parts extracted from the component side.
- ▒▒▒: Pattern from the side which enables seeing.
- Abbreviation
  DA80ES : STR-DA80ES
  V88ES : TA-V88ES
  VA80ES : TA-VA80ES
  EE : East European
  G : German
  MY : Malaysia
  SP : Singapore

• IC Block Diagrams

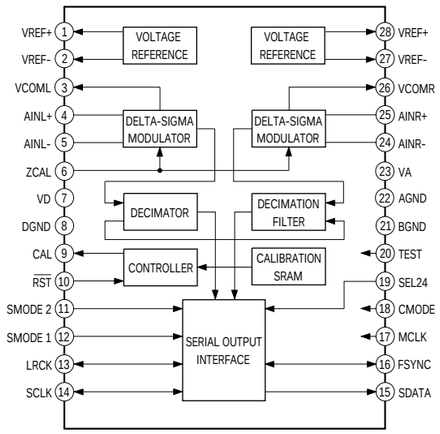
IC101 TD62C950RF (DISPLAY BOARD)



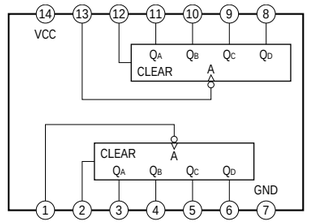
IC140 BA6208 (BAL (A) BOARD)



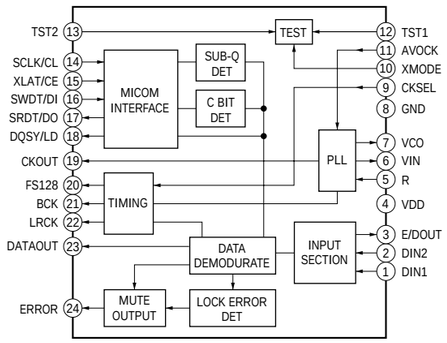
IC3104 CXD8681M-TP (DIGITAL BOARD)



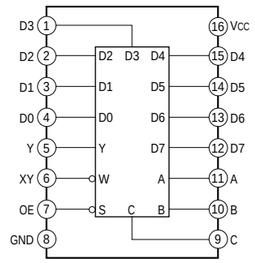
IC3108, 3407 TC74HC393AF-TP1 (DIGITAL BOARD)



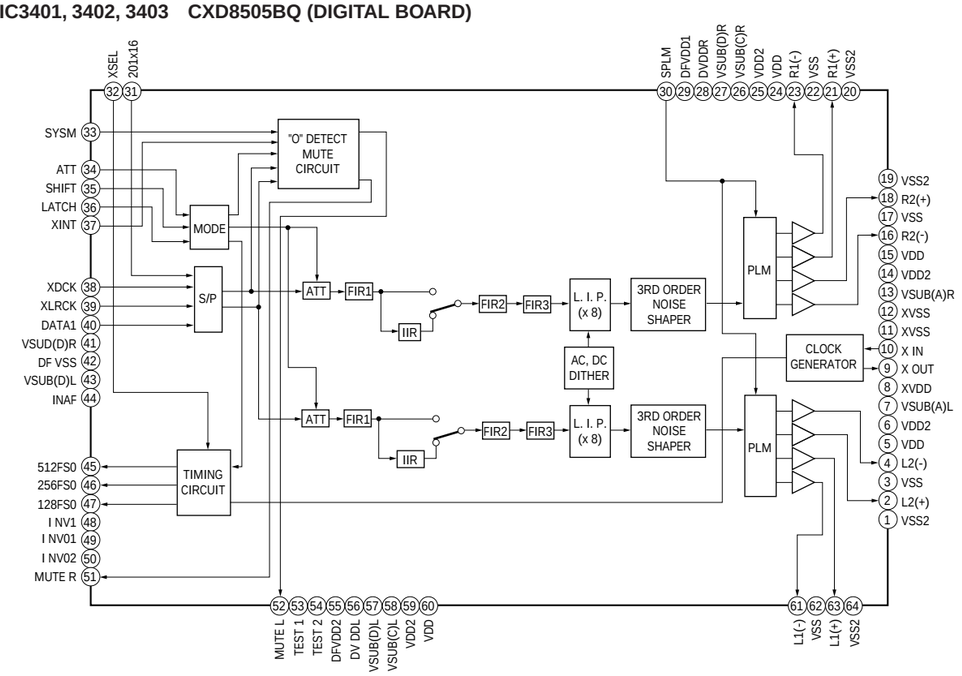
IC3311 CXD8521M (DIGITAL BOARD)



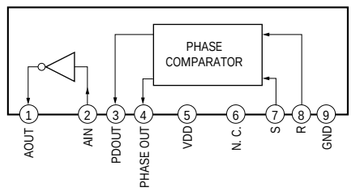
IC3313 TC74HC151AF-TP1 (DIGITAL BOARD)



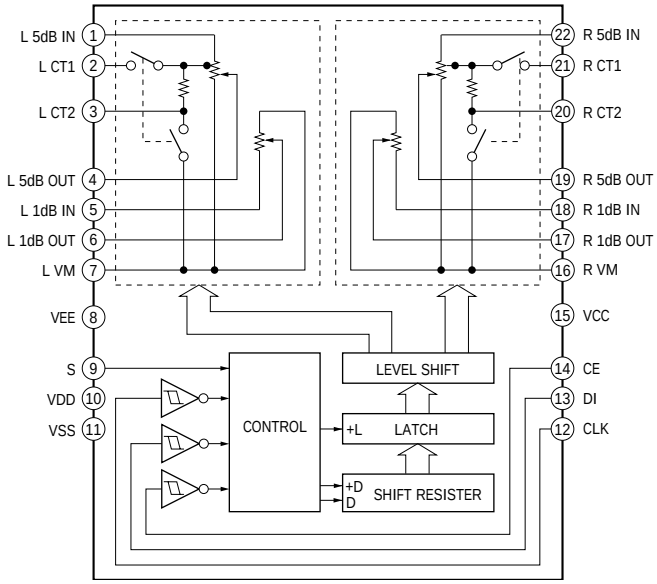
IC3401, 3402, 3403 CXD8505BQ (DIGITAL BOARD)



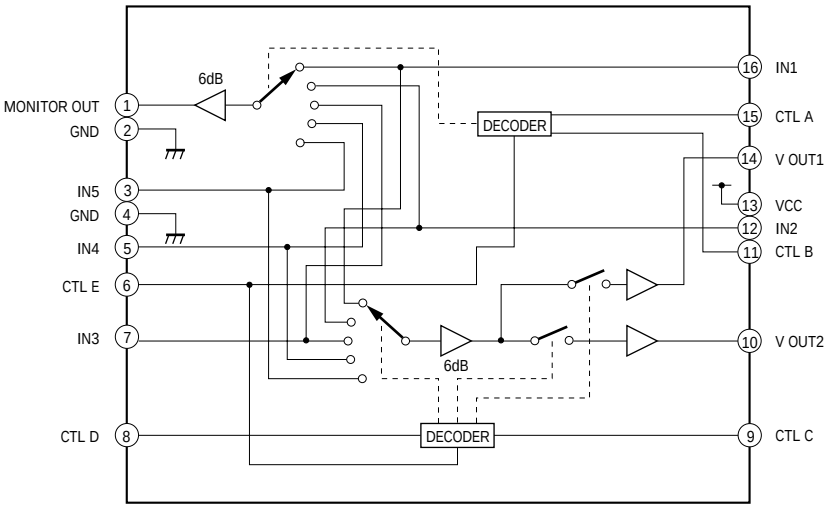
IC3409 TC5081AP (DIGITAL BOARD)



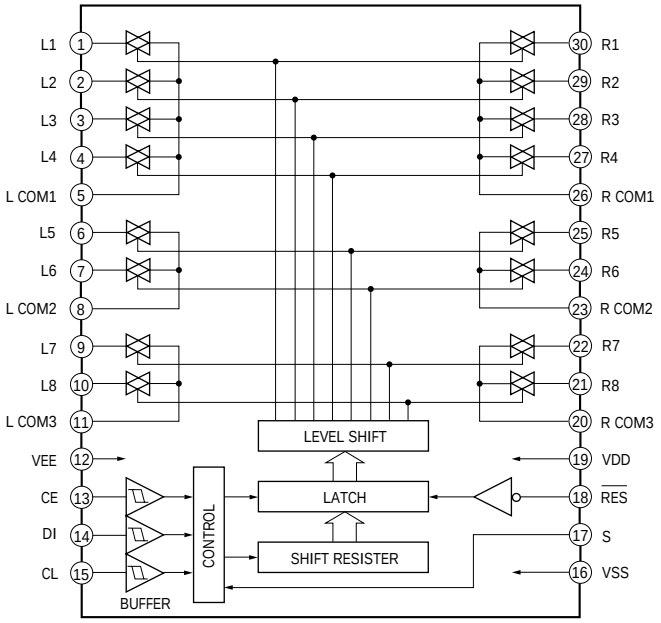
IC3516 LC7535M-TP (DIGITAL BOARD)



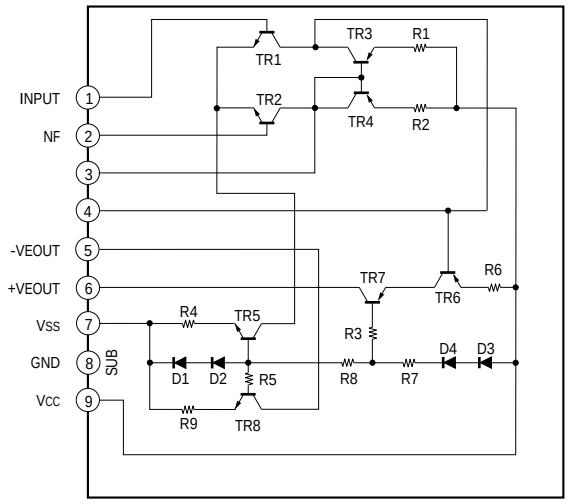
IC803, 804 SN741200 (S VIDEO BOARD)
IC811 SN741200 (VIDEO BOARD)



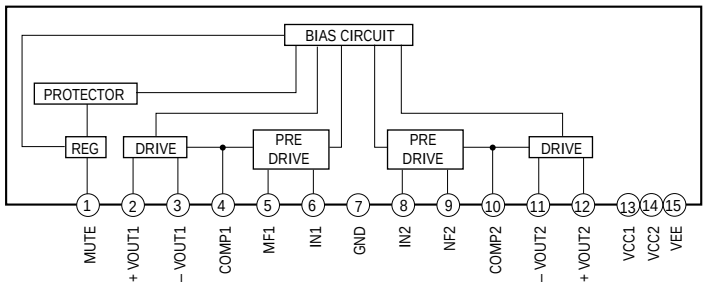
IC202 LC7821 (INPUT BOARD)
IC291 LC7821 (AUDIO BOARD)



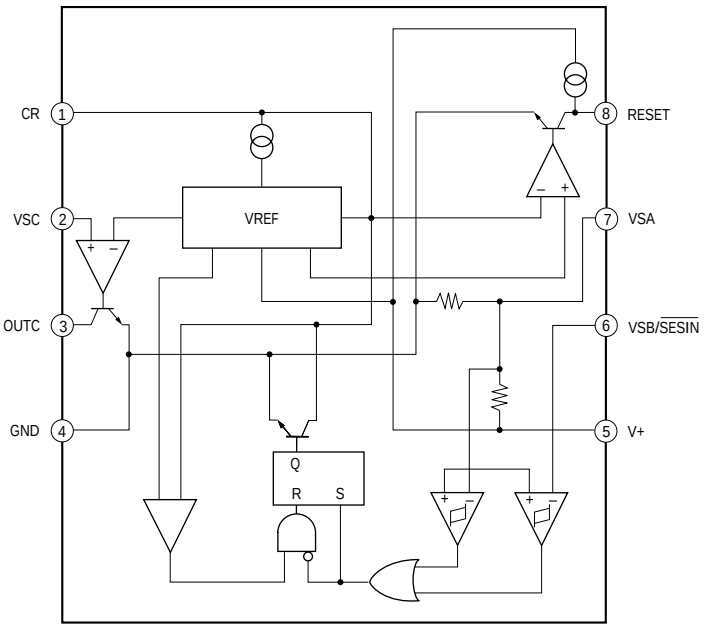
IC001, 601, 651 STK350-230 (INPUT BOARD)



IC701 µPC2581V (INPUT BOARD)



IC901 NJM2103D (AC BOARD)



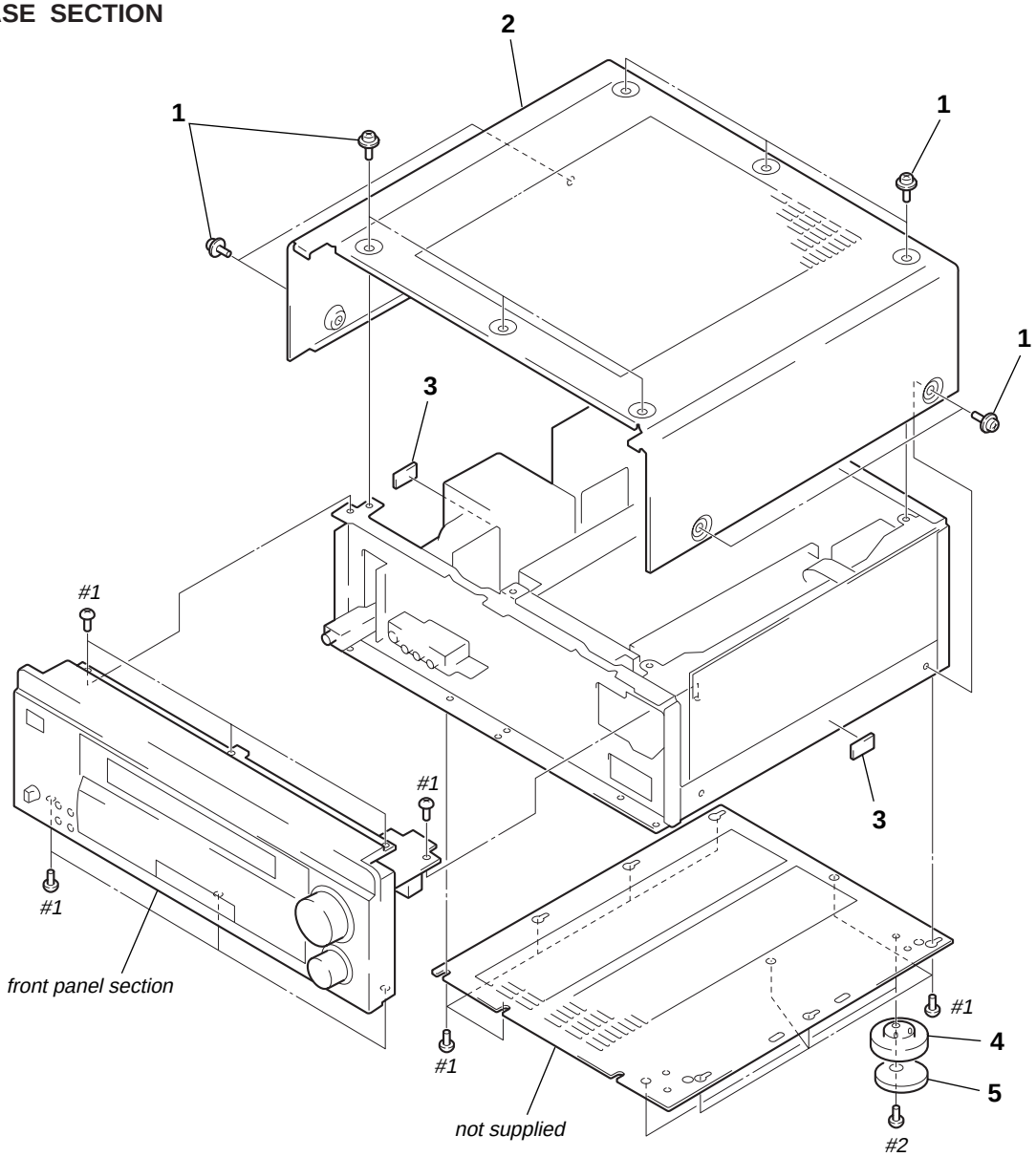
SECTION 5
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  G : German MY : Malaysia
  EE: East European AUS : Australian
  SP : Singapore
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

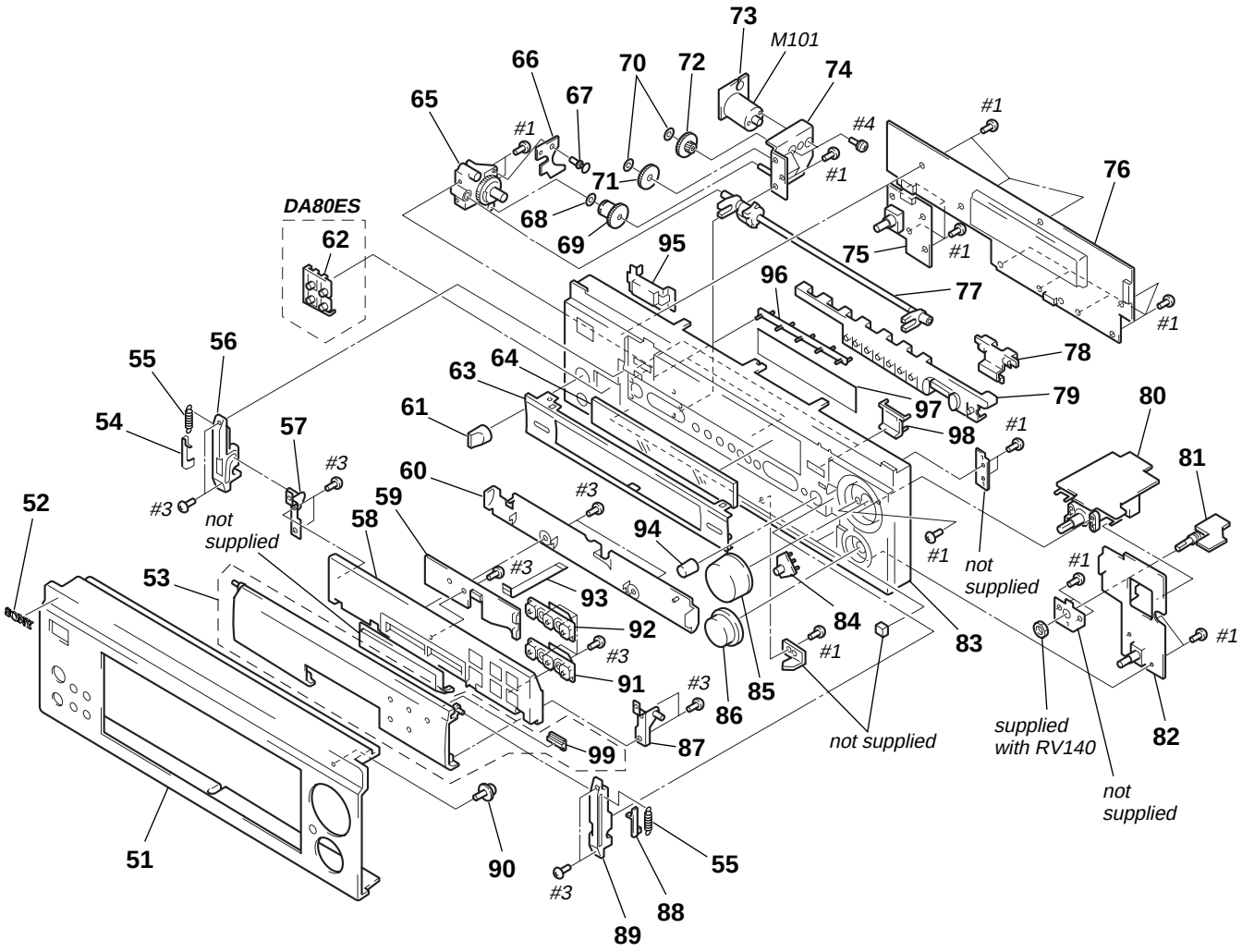
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

(1) CASE SECTION



Ref. No.	Part No.	Description	Remark
1	3-704-366-01	SCREW (CASE) (M3X8) (BLACK) (DA80ES/ VA80ES: AEP, UK, G, EE, CIS, E, SP, MY)	
1	3-704-366-11	SCREW (CASE) (M3X8) (SILVER) (V88ES/VA80ES: AEP, UK, G, EE, CIS)	
* 2	4-982-090-01	CASE (414538E) (BLACK) (DA80ES/ VA80ES: AEP, UK, G, EE, CIS, E, SP, MY)	
* 2	4-982-090-21	CASE (414538E) (SILVER) (V88ES/VA80ES:AEP, UK, G, EE, CIS)	
3	4-985-642-01	CUSHION	
4	4-970-123-01	FOOT (F50180S)	
5	4-970-124-01	CUSHION (F50180S)	

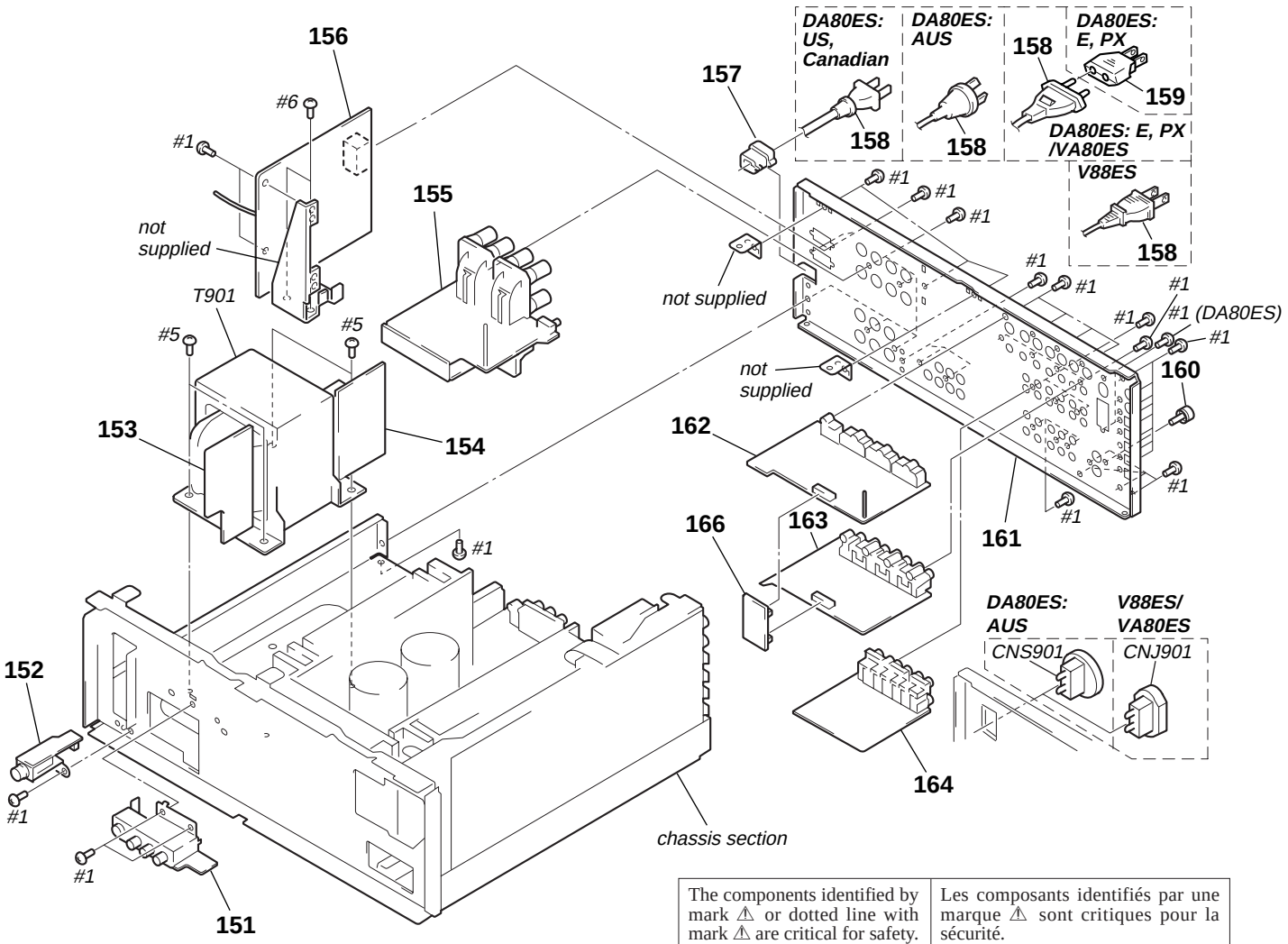
(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-991-378-11	PANEL, FRONT (BLACK)	(DA80ES: US, Canadian)
51	4-991-378-41	PANEL, FRONT (BLACK)	(VA80ES:AEP, UK, G, EE, CIS, E, SP, MY)
51	4-991-378-51	PANEL, FRONT (SILVER) (V88ES)	
51	4-991-378-81	PANEL, FRONT (BLACK) (DA80ES: E, AUS, PX)	
51	4-991-378-91	PANEL, FRONT (SILVER)	(VA80ES: AEP, UK, G, EE, CIS)
52	4-942-568-01	EMBLEM (NO.5), SONY (BLACK) (DA80ES/	VA80ES: AEP, UK, EE, CIS, E, SP, MY)
52	4-942-568-21	EMBLEM (NO.5), SONY (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
53	X-4948-619-1	LID (FRONT) ASSY (BLACK) (DA80ES/	VA80ES: AEP, UK, G, EE, CIS, E, SP, MY)
53	X-4948-621-1	LID (FRONT) ASSY (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
54	3-974-992-01	SLIDER (L), DOOR	
55	4-991-596-01	SPRING, TENSION	
56	4-991-406-01	FRAME (DOOR L)	
57	X-4948-616-1	SHAFT (L) ASSY, DOOR DRIVING	
58	4-991-393-01	LID (BASE) (BLACK) (DA80ES/VA80ES: AEP,	UK, G, EE, CIS, E, SP, MY)
58	4-991-393-11	LID (BASE) (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
* 59	1-666-331-11	CONNECTOR BOARD	
60	4-991-394-01	LID (BACK) (BLACK) (DA80ES/VA80ES: AEP,	UK, G, EE, CIS, E, SP, MY)
60	4-991-394-11	LID (BACK) (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
61	4-957-383-01	KNOB (F14) (BLACK) (DA80ES/VA80ES:AEP,	UK, G, EE, CIS, E, SP, MY)
61	4-957-383-21	KNOB (F14) (SILVER) (V88ES/VA80ES:AEP,	UK, G, EE, CIS, E, SP, MY)
62	4-991-384-01	BUTTON (TUNER) (DA80ES)	
63	4-991-390-01	PANEL (WINDOW) (BLACK) (DA80ES)	
63	4-991-390-31	PANEL (WINDOW) (BLACK)	(VA80ES: AEP, UK, G, EE, CIS, E, SP, MY)
63	4-991-390-41	PANEL (WINDOW) (SILVER) (V88ES/VA80ES:	AEP, UK, G, EE, CIS, E, SP, MY)
64	4-991-389-21	WINDOW (DA80ES: US, Canadian)	
64	4-991-389-31	WINDOW (DA80ES: E, AUS, PX/V88ES/	VA80ES)
65	A-4384-608-A	BASE ASSY, GEAR	
* 66	1-666-314-11	SENSOR BOARD	
67	4-812-134-00	RIVET (DIA. 3.5), NYLON	
68	3-325-697-01	WASHER	
69	3-975-016-01	GEAR (D)	
70	3-377-720-01	WASHER, POLYETHYLENE	
71	3-975-015-01	GEAR (C)	
72	3-975-014-01	GEAR (B)	
* 73	1-666-313-11	MOTOR TM BOARD	
74	X-4948-598-1	BRACKET (MOTOR) ASSY	
* 75	1-666-330-11	SP SW BOARD	

Ref. No.	Part No.	Description	Remark
* 76	A-4398-778-A	DISPLAY BOARD, COMPLETE	(DA80ES: US, Candian)
* 76	A-4398-779-A	DISPLAY BOARD, COMPLETE (DA80ES: AUS)	
* 76	A-4398-780-A	DISPLAY BOARD, COMPLETE (DA80ES: E, PX)	
* 76	A-4398-819-A	DISPLAY BOARD, COMPLETE (V88ES/VA80ES)	
77	A-4384-609-A	SHAFT (LINK) ASSY	
78	4-991-383-01	BUTTON (SUB) (BLACK) (DA80ES/VA80ES:	AEP, UK, G, EE, CIS, E, SP, MY)
78	4-991-383-11	BUTTON (SUB) (SILVER)	(V88ES/VA80ES: AEP, UK, EE, CIS)
79	4-991-382-01	BUTTON (MAIN) (BLACK) (DA80ES/VA80ES:	AEP, UK, G, EE, CIS, E, SP, MY)
79	4-991-382-11	BUTTON (MAIN) (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
* 80	1-666-309-11	VOL BOARD	
* 81	1-666-316-11	BAL (B) BOARD	
* 82	1-666-315-11	BAL (A) BOARD	
83	4-991-379-01	BASE, PANEL (BLACK) (DA80ES)	
83	4-991-379-31	BASE, PANEL (BLACK)	(VA80ES: AEP, UK, EE, CIS, E, SP, MY)
83	4-991-379-41	BASE, PANEL (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
84	4-991-385-01	BUTTON (MODE) (BLACK) (DA80ES/VA80ES:	AEP, UK, G, EE, CIS, E, SP, MY)
84	4-991-385-11	BUTTON (MODE) (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
85	X-4948-600-1	KNOB (VOL) ASSY (BLACK) (DA80ES/VA80ES:	AEP, UK, G, EE, CIS, E, SP, MY)
85	X-4948-633-1	KNOB (VOL) ASSY (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
86	X-4948-601-1	KNOB (FUNC) ASSY (BLACK) (DA80ES/	VA80ES: AEP, UK, G, EE, CIS, E, SP, MY)
86	X-4948-634-1	KNOB (FUNC) ASSY (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
87	X-4948-617-1	SHAFT (R) ASSY, DOOR DRIVING	
88	3-974-989-01	SLIDER, DOOR (R)	
89	4-991-407-01	FRAME (DOOR R)	
90	4-991-387-01	INDICATOR (MUTE)	
91	1-475-109-21	SWITCH (A) BLOCK, TOUCH	
92	1-475-109-31	SWITCH (B) BLOCK, TOUCH	
93	1-775-084-11	WIRE (FLAT TYPE) (9 CORE)	
94	4-980-639-01	KNOB (R14) (BLACK) (DA80ES/VA80ES:	AEP, UK, G, EE, CIS, E, SP, MY)
94	4-980-639-31	KNOB (R14) (SILVER)	(V88ES/VA80ES: AEP,UK, G, EE, CIS)
95	4-979-936-01	BUTTON (P-T) (BLACK) (DA80ES)	
95	4-980-109-01	BUTTON (P-M) (BLACK)	(VA80ES: AEP, UK, G, EE, CIS, E, SP, MY)
95	4-980-109-41	BUTTON (P-M) (SILVER)	(V88ES/VA80ES: AEP, UK, G, EE, CIS)
96	4-991-388-01	INDICATOR (FUNC)	
97	4-991-391-01	FILTER	
98	4-991-386-01	BUTTON (WINDOW)	
99	4-994-595-01	SPACER (LID)	
M101	A-4384-605-A	MOTOR ASSY (DOOR OPEN/CLOSE)	

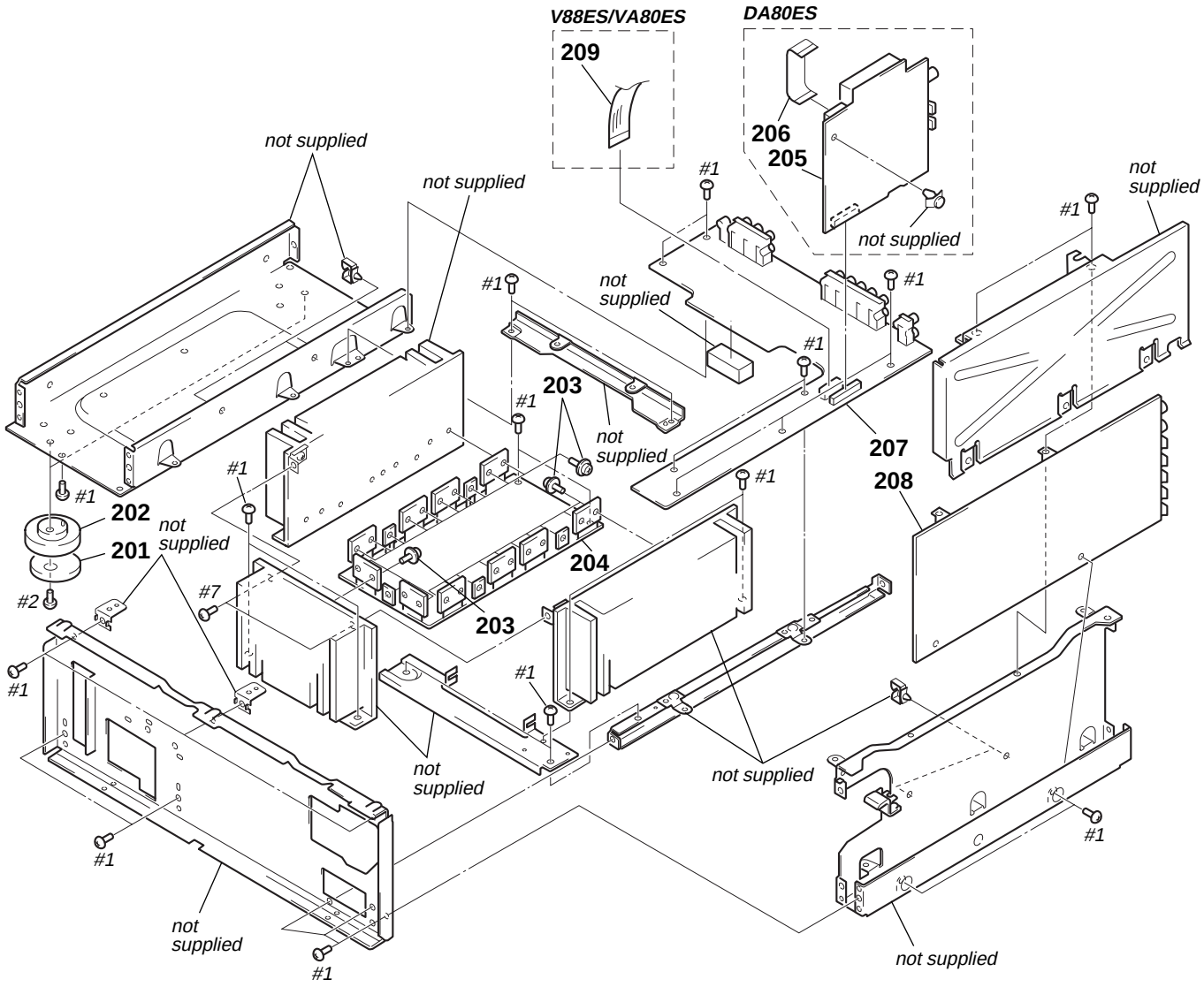
(3) BACK PANEL SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description	Remark
* 151	1-666-305-11	F.VIDEO BOARD	
* 152	1-666-304-11	HP BOARD	
* 153	1-666-303-11	PTB BOARD	
* 154	1-666-302-11	PTA BOARD	
* 155	A-4398-793-A	SPTM BOARD, COMPLETE (DA80ES)	
* 155	A-4398-827-A	SPTM BOARD, COMPLETE (V88ES/VA80ES)	
* 156	A-4398-769-A	AC BOARD, COMPLETE (DA80ES: US, Canadian)	
* 156	A-4398-770-A	AC BOARD, COMPLETE (DA80ES: AUS)	
* 156	A-4398-771-A	AC BOARD, COMPLETE (DA80ES: E, PX)	
* 156	A-4398-816-A	AC BOARD, COMPLETE (V88ES/VA80ES)	
* 157	3-703-244-00	BUSHING (2104), CORD (DA80ES: E, AUS, PX/V88ES/VA80ES)	
157	4-916-783-01	BUSHING, CORD (DA80ES: US, Canadian)	
⚠158	1-559-479-11	CORD, POWER (DA80ES:US, Canadian)	
⚠158	1-690-608-11	CORD, POWER (DA80ES: AUS)	
⚠158	1-776-095-11	CORD, POWER (DA80ES: E, PX/VA80ES)	
⚠158	1-782-464-21	CORD, POWER (V88ES)	
⚠159	1-569-008-21	ADAPTOR, CONVERSION 2P (DA80ES:E ,PX)	
160	4-947-010-01	SCREW, FEEDER FIXED	
* 161	4-991-373-31	PANEL (STR), BACK (DA80ES: US)	
* 161	4-991-373-41	PANEL (STR), BACK (DA80ES: Canadian)	
* 161	4-991-373-51	PANEL (STR), BACK (DA80ES: AUS)	
* 161	4-991-373-61	PANEL (STR), BACK (DA80ES: E, PX)	
* 161	4-991-374-01	PANEL (TA), BACK (VA80ES: AEP, UK, G, EE, CIS)	
* 161	4-991-374-31	PANEL (TA), BACK (VA80ES: E, SP, MY)	
* 161	4-991-374-41	PANEL (TA), BACK (V88ES)	
* 162	A-4398-773-A	S VIDEO BOARD, COMPLETE (DA80ES: US, Canadian)	
* 162	A-4398-774-A	S VIDEO BOARD, COMPLETE (DA80ES: E, AUS, PX/V88ES/VA80ES)	
* 163	A-4398-772-A	VIDEO BOARD, COMPLETE	
* 164	1-666-322-11	AUDIO BOARD	
* 166	1-666-324-11	CBV BOARD	
⚠CNS901	1-251-416-11	OUTLET, A.C. (DA80ES: AUS)	
⚠CNS901	1-526-794-11	OUTLET, AC (V88ES/VA80ES: E, MY, SP)	
⚠T901	1-431-388-11	TRANSFORMER, POWER (DA80ES: E, PX)	
⚠T901	1-431-389-11	TRANSFORMER, POWER (DA80ES: AUS)	
⚠T901	1-431-391-11	TRANSFORMER, POWER (DA80ES: US)	
⚠T901	1-431-392-11	TRANSFORMER, POWER (DA80ES: Canadian)	
⚠T901	1-431-393-11	TRANSFORMER, POWER (V88ES/VA80ES)	

(4) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
201	4-970-124-01	CUSHION (F50180S)	
202	4-970-123-01	FOOT (F50180S)	
203	3-905-609-01	SCREW (TRANSISTOR)	
* 204	A-4403-068-A	AMP BOARD, COMPLETE (DA80ES)	
* 204	A-4403-069-A	AMP BOARD BOARD, COMPLETE (V88ES/VA80ES)	
* 205	1-666-310-11	TUNER BOARD (DA80ES)	
206	1-773-001-11	WIRE (FLAT TYPE) (15 CORE) (DA80ES)	
* 207	A-4398-782-A	INPUT BOARD, COMPLETE (DA80ES)	
* 207	A-4398-823-A	INPUT BOARD, COMPLETE (V88ES/VA80ES)	
* 208	A-4398-831-A	DIGITAL BOARD, COMPLETE (V88ES/VA80ES)	
* 208	A-4403-829-A	DIGITAL BOARD, COMPLETE (DA80ES: AUS)	
* 208	A-4403-830-A	DIGITAL BOARD, COMPLETE (DA80ES: US, Canadian)	
* 208	A-4403-831-A	DIGITAL BOARD, COMPLETE (DA80ES: E, PX)	
209	1-769-946-11	WIRE (FLAT TYPE) (11 CORE) (V88ES/VA80ES)	

AC

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Abbreviation
  DA80ES: STR-DA80ES V88ES: TA-V88ES VA80ES: TA-VA80ES
  AUS: Australian EE: East European G: German MY: Malaysia SP: Singapore
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-4398-769-A	AC BOARD, COMPLETE (DA80ES: US, Canadian)			
*	A-4398-770-A	AC BOARD, COMPLETE (DA80ES: AUS)			
*	A-4398-771-A	AC BOARD, COMPLETE (DA80ES: E, PX)			
*	A-4398-816-A	AC BOARD, COMPLETE (V88ES/VA80ES)			
		**********			
	1-533-293-11	HOLDER, FUSE			
	7-685-872-09	SCREW +BVTT 3X8 (S)			
		< CAPACITOR >			
C901	1-164-097-11	CERAMIC	0.022uF		50V
C902	1-164-097-11	CERAMIC	0.022uF		50V
C903	1-126-767-11	ELECT	1000uF	20%	16V
C904	1-126-960-11	ELECT	1uF	20%	50V
C905	1-126-959-11	ELECT	0.47uF	20%	50V
C906	1-124-464-11	ELECT	0.22uF	20%	50V
C907	1-126-964-11	ELECT	10uF	20%	50V
C908	1-164-159-11	CERAMIC	0.1uF		50V
C910	1-164-159-11	CERAMIC	0.1uF		50V
C911	1-164-159-11	CERAMIC	0.1uF		50V
C912	1-164-159-11	CERAMIC	0.1uF		50V
⚠C913	1-113-927-11	CERAMIC	0.01uF	99%	125V (V88ES/VA80ES)
		< CONNECTOR >			
CNE910	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P (DA80ES)			
CNE910	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P (V88ES/VA80ES)			
CNP905	1-774-108-11	PIN, CONNECTOR (PC BOARD) (DA80ES: AUS/V88ES/VA80ES)			
CNV901	1-564-321-00	PIN, CONNECTOR 2P			
* CNV902	1-565-792-11	PIN, CONNECTOR 2P			
CNV903	1-568-106-11	PIN, CONNECTOR 4P (DA80ES: E, PX)			
		< AC OUTLET>			
⚠CNJ901	1-540-060-11	OUTLET, AC (POLAR) (AC OUTLET) (DA80ES: US, Canadian, E, PX)			
		< DIODE >			
D901	8-719-024-99	DIODE 11ES2-NTA2B			
D902	8-719-024-99	DIODE 11ES2-NTA2B			
D903	8-719-024-99	DIODE 11ES2-NTA2B			
D904	8-719-024-99	DIODE 11ES2-NTA2B			
D905	8-719-987-63	DIODE 1N4148M			
D906	8-719-987-63	DIODE 1N4148M			
D907	8-719-987-63	DIODE 1N4148M			
		< EARTH TERMINAL >			
EB901	1-537-738-21	TERMINAL, EARTH			
		< FUSE >			
⚠F901	1-532-465-51	FUSE, TIME LAG (3.15A/250V) (DA80ES: E, AUS, PX/V88ES/VA80ES)			
⚠F901	1-533-312-11	FUSE, GLASS CYLINDRICAL (DIA.5) (10A/125V) (DA80ES: US, Canadian)			
⚠F903	1-532-464-51	FUSE (2.5A/250V) (DA80ES: AUS/V88ES/VA80ES)			
⚠F904	1-532-465-51	FUSE, TIME LAG (3.15A/250V) (DA80ES: E, PX)			
		< IC >			
IC901	8-759-333-83	IC NJM2103D			
		< TRANSISTOR >			
Q901	8-729-119-79	TRANSISTOR 2SC2785-FEK			
Q902	8-729-209-15	TRANSISTOR 2SD2012			
		< RESISTOR >			
R900	1-249-393-11	CARBON	10	5%	1/4W
⚠R901	1-202-725-00	SOLID	3.3M	10%	1/2W (DA80ES: US, Canadian)
R902	1-249-429-11	CARBON	10K	5%	1/4W
R903	1-249-425-11	CARBON	4.7K	5%	1/4W
R904	1-249-417-11	CARBON	1K	5%	1/4W
R905	1-249-428-11	CARBON	8.2K	5%	1/4W
R906	1-249-421-11	CARBON	2.2K	5%	1/4W
R908	1-249-433-11	CARBON	22K	5%	1/4W
R909	1-249-439-11	CARBON	68K	5%	1/4W
R910	1-249-437-11	CARBON	47K	5%	1/4W
R912	1-249-430-11	CARBON	12K	5%	1/4W
		< RELAY >			
⚠RY901	1-515-999-11	RELAY, POWER			

Ref. No.	Part No.	Description			Remark
		< TRANSFORMER >			
⚠T902	1-431-387-11	TRANSFORMER, POWER			
		< SWITCH >			
⚠VS901	1-571-437-11	SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECT) (DA80ES: E, PX)			
**********					
*	A-4403-068-A	AMP BOARD, COMPLETE (DA80ES)			
*	A-4403-069-A	AMP BOARD, COMPLETE (V88ES/VA80ES)			
		**********			
	4-992-924-01	SPACER (49)			
		< CAPACITOR >			
C008	1-126-051-11	ELECT	47uF	20%	50V
C010	1-107-597-11	CERAMIC	22PF	10%	500V
C011	1-107-597-11	CERAMIC	22PF	10%	500V
C012	1-107-597-11	CERAMIC	22PF	10%	500V
C013	1-107-597-11	CERAMIC	22PF	10%	500V
C020	1-136-165-00	FILM	0.1uF	5%	50V
C022	1-126-935-11	ELECT	470uF	20%	6.3V
C023	1-126-965-11	ELECT	22uF	20%	50V
C608	1-126-051-11	ELECT	47uF	20%	50V
C610	1-107-597-11	CERAMIC	22PF	10%	500V
C611	1-107-597-11	CERAMIC	22PF	10%	500V
C612	1-107-597-11	CERAMIC	22PF	10%	500V
C613	1-107-597-11	CERAMIC	22PF	10%	500V
C620	1-136-165-00	FILM	0.1uF	5%	50V
C658	1-126-051-11	ELECT	47uF	20%	50V
C660	1-107-597-11	CERAMIC	22PF	10%	500V
C661	1-107-597-11	CERAMIC	22PF	10%	500V
C670	1-136-165-00	FILM	0.1uF	5%	50V
C676	1-107-597-11	CERAMIC	22PF	10%	500V
C677	1-107-597-11	CERAMIC	22PF	10%	500V
C708	1-126-051-11	ELECT	47uF	20%	50V
C710	1-107-597-11	CERAMIC	22PF	10%	500V
C711	1-107-597-11	CERAMIC	22PF	10%	500V
C712	1-107-597-11	CERAMIC	22PF	10%	500V
C713	1-107-597-11	CERAMIC	22PF	10%	500V
C720	1-136-165-00	FILM	0.1uF	5%	50V
C758	1-126-051-11	ELECT	47uF	20%	50V
C760	1-107-597-11	CERAMIC	22PF	10%	500V
C761	1-107-597-11	CERAMIC	22PF	10%	500V
C770	1-136-165-00	FILM	0.1uF	5%	50V
C776	1-107-597-11	CERAMIC	22PF	10%	500V
C777	1-107-597-11	CERAMIC	22PF	10%	500V
C985	1-117-858-11	CAPACITOR	12000uF	20%	71V (DA80ES)
C985	1-117-859-11	CAPACITOR	12000uF	20%	63V (V88ES/VA80ES)
C986	1-117-858-11	CAPACITOR	12000uF	20%	71V (DA80ES)
C986	1-117-859-11	CAPACITOR	12000uF	20%	63V (V88ES/VA80ES)
C987	1-115-568-21	ELECT	2200uF	20%	71V (DA80ES)
C987	1-113-686-21	ELECT	2200uF	20%	63V (V88ES/VA80ES)
C988	1-115-568-21	ELECT	2200uF	20%	71V (DA80ES)
C988	1-113-686-21	ELECT	2200uF	20%	63V (V88ES/VA80ES)
C990	1-106-228-00	MYLAR	0.22uF	5%	100V
C991	1-106-228-00	MYLAR	0.22uF	5%	100V
		< CONNECTOR >			
CNE610	1-770-966-11	PIN, CONNECTOR (PCB) (V TYPE) 6P			
CNE611	1-770-967-11	PIN, CONNECTOR (PCB) (V TYPE) 7P			
CNE612	1-770-969-11	PIN, CONNECTOR (PCB) (V TYPE) 9P			
CNV613	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P			
* CNV936	1-565-395-11	PIN, CONNECTOR 3P			
		< DIODE >			
D001	8-719-815-85	DIODE 1S1585			
D002	8-719-815-85	DIODE 1S1585			
D971	8-719-302-37	DIODE RBV-602			
D972	8-719-302-37	DIODE RBV-602			
D973	8-719-302-37	DIODE RBV-602			
D991	8-719-024-99	DIODE 11ES2-NTA2B			
D992	8-719-024-99	DIODE 11ES2-NTA2B			
		< TRANSISTOR >			
Q001	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q002	8-729-026-08	TRANSISTOR 2SC4495			
Q005	8-749-010-43	IC NE-N250			
Q006	8-749-010-42	IC NE-P250			
Q007	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q010	8-729-119-79	TRANSISTOR 2SC2785-FEK			
Q011	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA			
Q012	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q602	8-729-026-08	TRANSISTOR 2SC4495			
Q605	8-749-010-43	IC NE-N250			
Q606	8-749-010-42	IC NE-P250			
Q607	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q651	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q652	8-729-026-08	TRANSISTOR 2SC4495			
Q655	8-749-010-43	IC NE-N250			
Q656	8-749-010-42	IC NE-P250			
Q657	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q702	8-729-026-08	TRANSISTOR 2SC4495			
Q705	8-749-010-43	IC NE-N250			
Q706	8-749-010-42	IC NE-P250			
Q707	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
Q751	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q752	8-729-026-08	TRANSISTOR 2SC4495			
Q755	8-749-010-43	IC NE-N250			
Q756	8-749-010-42	IC NE-P250			
Q757	8-729-140-82	TRANSISTOR 2SA988-PAFAEA			
		< RESISTOR >			
R005	1-249-421-11	CARBON	2.2K	5%	1/4W
R006	1-249-437-11	CARBON	47K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

AMP AUDIO

Ref. No.	Part No.	Description			Remark
R007	1-249-411-11	CARBON	330	5%	1/4W
⚠R010	1-249-393-11	CARBON	10	5%	1/4W F
⚠R011	1-249-393-11	CARBON	10	5%	1/4W F
⚠R012	1-249-393-11	CARBON	10	5%	1/4W F
⚠R013	1-249-393-11	CARBON	10	5%	1/4W F
R016	1-233-352-41	ENCAPSULATED COMPONENT			
R017	1-233-352-41	ENCAPSULATED COMPONENT			
R021	1-249-427-11	CARBON	6.8K	5%	1/4W
R022	1-249-419-11	CARBON	1.5K	5%	1/4W
R023	1-249-437-11	CARBON	47K	5%	1/4W
R053	1-249-429-11	CARBON	10K	5%	1/4W
R054	1-249-417-11	CARBON	1K	5%	1/4W
R055	1-249-429-11	CARBON	10K	5%	1/4W
R056	1-249-429-11	CARBON	10K	5%	1/4W
R057	1-249-441-11	CARBON	100K	5%	1/4W
R605	1-249-421-11	CARBON	2.2K	5%	1/4W
R606	1-249-437-11	CARBON	47K	5%	1/4W
R607	1-249-411-11	CARBON	330	5%	1/4W
⚠R610	1-249-393-11	CARBON	10	5%	1/4W F
⚠R611	1-249-393-11	CARBON	10	5%	1/4W F
⚠R612	1-249-393-11	CARBON	10	5%	1/4W F
⚠R613	1-249-393-11	CARBON	10	5%	1/4W F
R615	1-233-352-41	ENCAPSULATED COMPONENT			
R618	1-233-352-41	ENCAPSULATED COMPONENT			
R621	1-249-427-11	CARBON	6.8K	5%	1/4W
R622	1-249-419-11	CARBON	1.5K	5%	1/4W
R623	1-249-437-11	CARBON	47K	5%	1/4W
R655	1-249-421-11	CARBON	2.2K	5%	1/4W
R656	1-249-437-11	CARBON	47K	5%	1/4W
R657	1-249-411-11	CARBON	330	5%	1/4W
⚠R660	1-249-393-11	CARBON	10	5%	1/4W F
⚠R661	1-249-393-11	CARBON	10	5%	1/4W F
⚠R662	1-249-393-11	CARBON	10	5%	1/4W F
⚠R663	1-249-393-11	CARBON	10	5%	1/4W F
R665	1-233-352-41	ENCAPSULATED COMPONENT			
R668	1-233-352-41	ENCAPSULATED COMPONENT			
R671	1-249-427-11	CARBON	6.8K	5%	1/4W
R672	1-249-419-11	CARBON	1.5K	5%	1/4W
R673	1-249-437-11	CARBON	47K	5%	1/4W
R705	1-249-421-11	CARBON	2.2K	5%	1/4W
R706	1-249-437-11	CARBON	47K	5%	1/4W
R707	1-249-411-11	CARBON	330	5%	1/4W
⚠R710	1-249-393-11	CARBON	10	5%	1/4W F
⚠R711	1-249-393-11	CARBON	10	5%	1/4W F
⚠R712	1-249-393-11	CARBON	10	5%	1/4W F
⚠R713	1-249-393-11	CARBON	10	5%	1/4W F
R715	1-233-352-41	ENCAPSULATED COMPONENT			
R718	1-233-352-41	ENCAPSULATED COMPONENT			
R721	1-249-427-11	CARBON	6.8K	5%	1/4W
R722	1-249-419-11	CARBON	1.5K	5%	1/4W
R723	1-249-437-11	CARBON	47K	5%	1/4W
R755	1-249-421-11	CARBON	2.2K	5%	1/4W
R756	1-249-437-11	CARBON	47K	5%	1/4W
R757	1-249-411-11	CARBON	330	5%	1/4W
⚠R760	1-249-393-11	CARBON	10	5%	1/4W F
⚠R761	1-249-393-11	CARBON	10	5%	1/4W F
⚠R762	1-249-393-11	CARBON	10	5%	1/4W F
⚠R763	1-249-393-11	CARBON	10	5%	1/4W F
R765	1-233-352-41	ENCAPSULATED COMPONENT			
R768	1-233-352-41	ENCAPSULATED COMPONENT			
R771	1-249-427-11	CARBON	6.8K	5%	1/4W
R772	1-249-419-11	CARBON	1.5K	5%	1/4W
R773	1-249-437-11	CARBON	47K	5%	1/4W
⚠R911	1-247-727-11	CARBON	10	5%	1/2W F
⚠R912	1-247-727-11	CARBON	10	5%	1/2W F
		< VARIABLE RESISTOR >			
RV001	1-241-660-21	RES, ADJ, CARBON 220			
RV601	1-241-660-21	RES, ADJ, CARBON 220			
RV651	1-241-660-21	RES, ADJ, CARBON 220			
RV701	1-241-660-21	RES, ADJ, CARBON 220			
RV751	1-241-660-21	RES, ADJ, CARBON 220			
**********					
*	1-666-322-11	AUDIO BOARD **********			
		< CAPACITOR >			
C209	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C210	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C212	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C213	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C214	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C215	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C223	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C259	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C260	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C262	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C263	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C264	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C265	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C273	1-162-282-31	CERAMIC	100PF	10% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C291	1-126-048-81	ELECT	10uF	20% 50V	
C292	1-126-048-81	ELECT	10uF	20% 50V	
C293	1-126-048-81	ELECT	10uF	20% 50V	
C294	1-126-048-81	ELECT	10uF	20% 50V	
C295	1-162-282-31	CERAMIC	100PF	10% 50V	
C296	1-162-294-31	CERAMIC	0.001uF	10% 50V	
		< CONNECTOR >			
CNE211	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			
CNS210	1-695-093-11	SOCKET, CONNECTOR 9P			

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description			Remark
		< IC >			
IC291	8-759-805-13	IC LC7821			
IC292	8-759-634-51	IC M5218AP			
		< JACK >			
J210	1-778-064-11	JACK, PIN 4P (LD/DVD IN, TV/DBS IN)			
J211	1-778-064-11	JACK, PIN 4P (VIDEO 2 IN/OUT)			
J212	1-778-064-11	JACK, PIN 4P (VIDEO 1 IN/OUT)			
		< RESISTOR >			
R222	1-249-417-11	CARBON	1K	5%	1/4W
R223	1-249-417-11	CARBON	1K	5%	1/4W
R224	1-249-417-11	CARBON	1K	5%	1/4W
R225	1-249-417-11	CARBON	1K	5%	1/4W
R226	1-249-417-11	CARBON	1K	5%	1/4W
R227	1-249-417-11	CARBON	1K	5%	1/4W
R269	1-247-807-31	CARBON	100	5%	1/4W
R271	1-247-807-31	CARBON	100	5%	1/4W
R272	1-249-417-11	CARBON	1K	5%	1/4W
R273	1-249-417-11	CARBON	1K	5%	1/4W
R274	1-249-417-11	CARBON	1K	5%	1/4W
R275	1-249-417-11	CARBON	1K	5%	1/4W
R276	1-249-417-11	CARBON	1K	5%	1/4W
R277	1-249-417-11	CARBON	1K	5%	1/4W
R291	1-249-441-11	CARBON	100K	5%	1/4W
R292	1-249-441-11	CARBON	100K	5%	1/4W
R295	1-249-417-11	CARBON	1K	5%	1/4W
R296	1-249-425-11	CARBON	4.7K	5%	1/4W
**********					
*	1-666-315-11	BAL (A) BOARD			
		**********			
		< CAPACITOR >			
C140	1-126-964-11	ELECT	10uF	20%	50V
		< CONNECTOR >			
CNP141	1-766-553-11	PLUG, CONNECTOR 10P			
CNS107	1-770-398-11	HOUSING, CONNECTOR (PC BOARD) 5P			
CNS108	1-770-397-11	HOUSING, CONNECTOR (PC BOARD) 4P			
		< LED >			
D140	8-719-046-39	LED SEL5821A-TH15 (MUTING)			
		< IC >			
IC140	8-759-962-08	IC BA6208			
		< TRANSISTOR >			
Q141	8-729-900-36	TRANSISTOR DTC124ES			
Q142	8-729-900-36	TRANSISTOR DTC124ES			
		< RESISTOR >			
R140	1-249-429-11	CARBON	10K	5%	1/4W
R141	1-249-429-11	CARBON	10K	5%	1/4W
R142	1-249-411-11	CARBON	330	5%	1/4W
R143	1-249-411-11	CARBON	330	5%	1/4W

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV101	1-467-808-11	ENCODER, ROTARY (FUNCTION)			
		< SWITCH >			
S140	1-572-184-11	SWITCH, KEYBOARD (MODE)			
**********					
*	1-666-316-11	BAL (B) BOARD			
		**********			
		< RESISTOR >			
R144	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV140	1-225-480-11	RES, VAR, CARBON 100K/100K (BALANCE)			
**********					
*	1-666-324-11	CBV BOARD			
		**********			
		< CONNECTOR >			
CNP805	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			
CNP806	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			
**********					
*	1-666-331-11	CONNECTOR BOARD			
		**********			
		< CONNECTOR >			
CNS101	1-779-976-21	PIN, CONNECTOR 9P			
CNS104	1-779-699-11	CONNECTOR, FFC (LIF (NON-ZIF)) 7P			
CNS106	1-779-699-11	CONNECTOR, FFC (LIF (NON-ZIF)) 7P			
		< RESISTOR >			
R189	1-216-049-91	METAL CHIP	1K	5%	1/10W
R190	1-216-049-91	METAL CHIP	1K	5%	1/10W
**********					
*	A-4398-831-A	DIGITAL BOARD, COMPLETE (V88ES/VA80ES)			
*	A-4403-829-A	DIGITAL BOARD, COMPLETE (DA80ES: AUS)			
*	A-4403-830-A	DIGITAL BOARD, COMPLETE (DA80ES: US, Canadian)			
*	A-4403-831-A	DIGITAL BOARD, COMPLETE (DA80ES: E, PX)			
		**********			
		< CAPACITOR >			
C3101	1-126-048-81	ELECT	10uF	20%	50V
C3102	1-126-048-81	ELECT	10uF	20%	50V
C3103	1-110-341-11	MYLAR	330PF	5%	50V
C3104	1-110-341-11	MYLAR	330PF	5%	50V
C3105	1-126-048-81	ELECT	10uF	20%	50V
C3106	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3107	1-106-351-00	MYLAR	2200PF	5%	200V
C3108	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3109	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3110	1-126-009-81	ELECT	100uF	20%	16V

DIGITAL

Ref. No.	Part No.	Description			Remark
C3111	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C3112	1-126-048-81	ELECT	10uF	20%	50V
C3113	1-126-048-81	ELECT	10uF	20%	50V
C3114	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C3115	1-126-051-11	ELECT	47uF	20%	50V
C3116	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3117	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3118	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C3119	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C3120	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3121	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3122	1-126-009-81	ELECT	100uF	20%	16V
C3151	1-126-048-81	ELECT	10uF	20%	50V
C3152	1-126-048-81	ELECT	10uF	20%	50V
C3153	1-110-341-11	MYLAR	330PF	5%	50V
C3154	1-110-341-11	MYLAR	330PF	5%	50V
C3155	1-126-048-81	ELECT	10uF	20%	50V
C3156	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3157	1-106-351-00	MYLAR	2200PF	5%	200V
C3158	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3159	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3160	1-126-009-81	ELECT	100uF	20%	16V
C3161	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C3162	1-126-048-81	ELECT	10uF	20%	50V
C3163	1-126-048-81	ELECT	10uF	20%	50V
C3164	1-164-222-11	CERAMIC CHIP	0.22uF		25V
C3166	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3301	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3302	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3303	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3304	1-163-023-00	CERAMIC CHIP	0.015uF	5%	50V
C3305	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3306	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3307	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3308	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3309	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3310	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3311	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3312	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3313	1-126-009-81	ELECT	100uF	20%	16V
C3314	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3315	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3316	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3320	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C3321	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3322	1-163-248-11	CERAMIC CHIP	75PF	5%	50V
C3323	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3324	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3325	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3326	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3327	1-136-921-11	FILM	1uF	5%	50V
C3328	1-136-921-11	FILM	1uF	5%	50V
C3330	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3331	1-126-009-81	ELECT	100uF	20%	16V
C3332	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3333	1-126-051-11	ELECT	47uF	20%	50V
C3334	1-130-495-00	MYLAR	0.1uF	5%	50V
C3336	1-165-319-11	CERAMIC CHIP	0.1uF		50V

Ref. No.	Part No.	Description			Remark
C3337	1-163-099-00	CERAMIC CHIP	18PF	5%	50V
C3338	1-163-085-00	CERAMIC CHIP	2PF		50V
C3339	1-126-048-81	ELECT	10uF	20%	50V
C3340	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3341	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3342	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3345	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3346	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3347	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3348	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3351	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3352	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3353	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3354	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3355	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3401	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C3402	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C3403	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C3404	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C3405	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C3406	1-163-222-11	CERAMIC CHIP	5PF	0.25PF	50V
C3407	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3408	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3409	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3410	1-130-483-00	MYLAR	0.01uF	5%	50V
C3411	1-163-249-11	CERAMIC CHIP	82PF	5%	50V
C3412	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3413	1-163-229-11	CERAMIC CHIP	12PF	5%	50V
C3414	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3415	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3416	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3417	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3418	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3419	1-126-009-81	ELECT	100uF	20%	16V
C3420	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3421	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3422	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3423	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3424	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3425	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3426	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3427	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3428	1-163-263-11	CERAMIC CHIP	330PF	5%	50V
C3429	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3430	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3431	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3432	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3433	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3434	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3435	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C3436	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3438	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3439	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3440	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3441	1-126-048-81	ELECT	10uF	20%	50V
C3442	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C3443	1-165-319-11	CERAMIC CHIP	0.1uF		50V

Ref. No.	Part No.	Description			Remark
C3444	1-126-009-81	ELECT	100uF	20%	16V
C3447	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3471	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3472	1-130-490-11	MYLAR	0.039uF	5%	50V
C3475	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3476	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3477	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3478	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3479	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3480	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3481	1-126-049-11	ELECT	22uF	20%	50V
C3482	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3483	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3484	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3485	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3486	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3487	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3488	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3489	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3490	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C3491	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3492	1-126-049-11	ELECT	22uF	20%	50V
C3493	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C3494	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3495	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3496	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3497	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3498	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3499	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3500	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3501	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3502	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3503	1-110-339-11	MYLAR	220PF	5%	50V
C3504	1-110-339-11	MYLAR	220PF	5%	50V
C3505	1-110-339-11	MYLAR	220PF	5%	50V
C3506	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3507	1-126-049-11	ELECT	22uF	20%	50V
C3508	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3509	1-110-339-11	MYLAR	220PF	5%	50V
C3510	1-130-477-00	MYLAR	0.0033uF	5%	50V
C3511	1-130-469-00	MYLAR	680PF	5%	50V
C3512	1-110-339-11	MYLAR	220PF	5%	50V
C3513	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3514	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3515	1-110-339-11	MYLAR	220PF	5%	50V
C3516	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3517	1-110-339-11	MYLAR	220PF	5%	50V
C3518	1-110-339-11	MYLAR	220PF	5%	50V
C3519	1-130-477-00	MYLAR	0.0033uF	5%	50V
C3520	1-130-469-00	MYLAR	680PF	5%	50V
C3521	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3522	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3525	1-126-049-11	ELECT	22uF	20%	50V
C3526	1-163-227-11	CERAMIC CHIP	10PF	0.5PF	50V
C3527	1-126-049-11	ELECT	22uF	20%	50V
C3531	1-126-049-11	ELECT	22uF	20%	50V
C3532	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3533	1-110-339-11	MYLAR	220PF	5%	50V
C3534	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3535	1-110-339-11	MYLAR	220PF	5%	50V
C3536	1-110-339-11	MYLAR	220PF	5%	50V
C3537	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3538	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3539	1-110-339-11	MYLAR	220PF	5%	50V
C3540	1-130-477-00	MYLAR	0.0033uF	5%	50V
C3541	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3542	1-130-469-00	MYLAR	680PF	5%	50V
C3543	1-110-339-11	MYLAR	220PF	5%	50V
C3544	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3545	1-130-469-00	MYLAR	680PF	5%	50V
C3546	1-130-477-00	MYLAR	0.0033uF	5%	50V
C3547	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3548	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3549	1-110-339-11	MYLAR	220PF	5%	50V
C3550	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C3550	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3551	1-110-339-11	MYLAR	220PF	5%	50V
C3552	1-110-339-11	MYLAR	220PF	5%	50V
C3553	1-110-339-11	MYLAR	220PF	5%	50V
C3554	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3555	1-110-339-11	MYLAR	220PF	5%	50V
C3556	1-110-339-11	MYLAR	220PF	5%	50V
C3557	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3558	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3559	1-110-339-11	MYLAR	220PF	5%	50V
C3560	1-130-477-00	MYLAR	0.0033uF	5%	50V
C3561	1-130-469-00	MYLAR	680PF	5%	50V
C3562	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3563	1-110-339-11	MYLAR	220PF	5%	50V
C3564	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3565	1-130-477-00	MYLAR	0.0033uF	5%	50V
C3566	1-130-469-00	MYLAR	680PF	5%	50V
C3567	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3568	1-110-339-11	MYLAR	220PF	5%	50V
C3569	1-110-339-11	MYLAR	220PF	5%	50V
C3570	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3571	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3572	1-110-339-11	MYLAR	220PF	5%	50V
C3573	1-126-048-81	ELECT	10uF	20%	50V
C3574	1-126-048-81	ELECT	10uF	20%	50V
C3575	1-126-048-81	ELECT	10uF	20%	50V
C3576	1-126-048-81	ELECT	10uF	20%	50V
C3577	1-126-048-81	ELECT	10uF	20%	50V
C3578	1-126-048-81	ELECT	10uF	20%	50V
C3579	1-126-048-81	ELECT	10uF	20%	50V
C3580	1-126-048-81	ELECT	10uF	20%	50V
C3581	1-126-048-81	ELECT	10uF	20%	50V
C3582	1-126-048-81	ELECT	10uF	20%	50V
C3583	1-126-048-81	ELECT	10uF	20%	50V
C3584	1-126-048-81	ELECT	10uF	20%	50V
C3585	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3586	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3587	1-126-049-11	ELECT	22uF	20%	50V
C3588	1-126-049-11	ELECT	22uF	20%	50V
C3589	1-165-319-11	CERAMIC CHIP	0.1uF		50V

DIGITAL

Ref. No.	Part No.	Description			Remark
C3590	1-126-009-81	ELECT	100uF	20%	16V
C3591	1-126-009-81	ELECT	100uF	20%	16V
C3592	1-126-009-81	ELECT	100uF	20%	16V
C3600	1-126-049-11	ELECT	22uF	20%	50V
C3605	1-126-049-11	ELECT	22uF	20%	50V
C3606	1-126-049-11	ELECT	22uF	20%	50V
C3607	1-126-049-11	ELECT	22uF	20%	50V
C3608	1-126-049-11	ELECT	22uF	20%	50V
C3609	1-126-049-11	ELECT	22uF	20%	50V
C3621	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3622	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3623	1-126-009-81	ELECT	100uF	20%	16V
C3625	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C3650	1-130-467-00	MYLAR	470PF	5%	50V
C3653	1-130-467-00	MYLAR	470PF	5%	50V
C3656	1-130-467-00	MYLAR	470PF	5%	50V
C3659	1-130-467-00	MYLAR	470PF	5%	50V
C3662	1-130-467-00	MYLAR	470PF	5%	50V
C3665	1-130-467-00	MYLAR	470PF	5%	50V
		< CONNECTOR >			
* CND35021-564-922-11		PIN, CONNECTOR (SMALL TYPE) 6P			
CND35031-568-946-11		PIN, CONNECTOR 8P			
* CND35041-568-949-11		PIN, CONNECTOR 11P			
CNE34021-770-963-11		PIN, CONNECTOR (PCB) (V TYPE) 3P (DA80ES)			
CNE34021-770-965-11		PIN, CONNECTOR (PCB) (V TYPE) 5P (V88ES/VA80ES)			
* CNE34031-564-725-11		PIN, CONNECTOR (SMALL TYPE) 9P			
* CNE35011-564-719-11		PIN, CONNECTOR (SMALL TYPE) 3P			
CNS35031-569-061-11		SOCKET, CONNECTOR 11P (V88ES/VA80ES)			
* CNS35031-569-306-11		SOCKET, CONNECTOR (L TYRE) 15P (DA80ES)			
		< DIODE >			
D3301	8-719-016-74	DIODE 1SS352			
D3302	8-719-016-74	DIODE 1SS352			
D3303	8-719-061-62	DIODE KV1851			
D3401	8-719-951-05	DIODE KV1560			
D3402	8-719-801-78	DIODE 1SS184			
D3403	8-719-801-78	DIODE 1SS184			
D3404	8-719-016-74	DIODE 1SS352			
D3407	8-719-820-05	DIODE 1SS181			
D3408	8-719-016-74	DIODE 1SS352			
D3409	8-719-801-78	DIODE 1SS184			
D3501	8-719-801-78	DIODE 1SS184			
D3502	8-719-801-78	DIODE 1SS184			
		< FERRITE BEAD >			
FB401	1-410-397-21	FERRITE BEAD INDUCTOR			
FB402	1-410-397-21	FERRITE BEAD INDUCTOR			
FB403	1-410-397-21	FERRITE BEAD INDUCTOR			
FB404	1-410-397-21	FERRITE BEAD INDUCTOR			
		< FILTER >			
FL3301	1-233-866-11	FILTER, BAND PASS			

Ref. No.	Part No.	Description	Remark
		< IC >	
IC3101	8-759-636-55	IC M5218AFP	
IC3102	8-759-636-55	IC M5218AFP	
IC3103	8-759-636-55	IC M5218AFP	
IC3104	8-759-463-77	IC CXD8681M-TP	
IC3105	8-759-711-58	IC NJM78L05UA	
IC3106	8-759-045-17	IC NJM79L05UA	
IC3107	8-759-242-70	IC TC7WU04F	
IC3108	8-759-233-26	IC TC74HC393AF-TP1	
IC3301	8-749-923-05	IC TORX178 (DIGITAL LD/DVD OPTICAL IN)	
IC3302	8-749-923-05	IC TORX178 (DA80ES: DIGITAL TV/DBS OPTICAL IN) (V88ES/VA80ES: DIGITAL TV OPTICAL IN)	
IC3303	8-749-923-05	IC TORX178 (DIGITAL CD OPTICAL IN)	
IC3304	8-749-923-04	IC TOTX178 (DIGITAL DAT/MD OPTICAL OUT)	
IC3305	8-759-262-03	IC MC14577CF	
IC3306	8-759-636-55	IC M5218AFP	
IC3307	8-759-045-17	IC NJM79L05UA	
IC3308	8-759-463-68	IC SN-PM4007A	
IC3309	8-759-441-94	IC IDT71256SA20Y-TL	
IC3311	8-759-326-72	IC CXD8521M	
IC3312	8-749-923-05	IC TORX178 (DIGITAL DAT/MD OPTICAL IN)	
IC3313	8-759-236-17	IC TC74HC151AF-TP1	
IC3314	8-759-242-70	IC TC7WU04F	
IC3401	8-759-370-62	IC CXD8505BQ	
IC3402	8-759-370-62	IC CXD8505BQ	
IC3403	8-759-370-62	IC CXD8505BQ	
IC3407	8-759-233-26	IC TC74HC393AF-TP1	
IC3408	8-759-233-64	IC TC74HCU04AF	
IC3409	8-759-250-81	IC TC5081AP	
IC3410	8-759-446-37	IC DSP56009FJ88F	
IC3411	8-759-436-44	IC IDT71024S20Y-TL	
IC3412	8-759-446-40	IC SSP424023FJ88	
IC3413	8-759-488-55	IC MB90641APF-G-104BND	
IC3414	8-759-232-65	IC TC74HC157AF	
IC3417	8-759-233-64	IC TC74HCU04AF	
IC3425	8-759-242-70	IC TC7WU04F	
IC3501	8-759-636-55	IC M5218AFP	
IC3502	8-759-636-55	IC M5218AFP	
IC3503	8-759-636-55	IC M5218AFP	
IC3504	8-759-636-55	IC M5218AFP	
IC3505	8-759-636-55	IC M5218AFP	
IC3506	8-759-636-55	IC M5218AFP	
IC3507	8-759-636-55	IC M5218AFP	
IC3508	8-759-636-55	IC M5218AFP	
IC3509	8-759-636-55	IC M5218AFP	
IC3510	8-759-636-55	IC M5218AFP	
IC3511	8-759-636-55	IC M5218AFP	
IC3512	8-759-636-55	IC M5218AFP	
IC3513	8-759-636-55	IC M5218AFP	
IC3514	8-759-636-55	IC M5218AFP	
IC3515	8-759-636-55	IC M5218AFP	
IC3516	8-759-463-71	IC LC7535M-TP	
IC3517	8-759-463-71	IC LC7535M-TP	

Ref. No.	Part No.	Description	Remark
		< JACK >	
J3301	1-770-905-21	JACK, PIN 1P (LD/DVD COAXIAL)	
J3302	1-779-797-11	JACK, PIN 1P (LD/DVD AC-3 RF)	
		< CHIP CONDUCTOR >	
JW3001	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3002	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3301	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3302	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3303	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3304	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3305	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3306	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3307	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3308	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3309	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3310	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3311	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3312	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3313	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3314	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3315	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3316	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3317	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3318	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3319	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3320	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3321	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3322	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3323	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3324	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3403	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3404	1-216-295-00	CONDUCTOR, CHIP (2012)	
JW3405	1-216-295-00	CONDUCTOR, CHIP (2012)	
		< FERRITE BEAD >	
L3301	1-410-391-11	INDUCTOR CHIP 68uH	
L3401	1-426-850-11	COIL (RF) 0.4uH	
L3402	1-410-381-11	INDUCTOR CHIP 10uH	
L3403	1-410-381-11	INDUCTOR CHIP 10uH	
L3404	1-410-381-11	INDUCTOR CHIP 10uH	
L3405	1-410-381-11	INDUCTOR CHIP 10uH	
L3406	1-414-813-21	MICRO INDUCTOR (CHIP TYPE)	
L3407	1-414-813-21	MICRO INDUCTOR (CHIP TYPE)	
L3408	1-414-813-21	MICRO INDUCTOR (CHIP TYPE)	
L3409	1-500-425-11	FERRITE BEAD	
L3410	1-500-425-11	FERRITE BEAD	
L3411	1-500-425-11	FERRITE BEAD (DA80ES: US, Canadian)	
		< TRANSISTOR >	
Q3301	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3304	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3305	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3307	8-729-028-96	TRANSISTOR RT1N141M-TP-1	
Q3308	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3309	8-729-028-96	TRANSISTOR RT1N141M-TP-1	
Q3310	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3311	8-729-028-96	TRANSISTOR RT1N141M-TP-1	
Q3312	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3313	8-729-028-96	TRANSISTOR RT1N141M-TP-1	
Q3314	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3401	8-729-232-11	TRANSISTOR 2SK302-GR-TE85L	
Q3402	8-729-232-11	TRANSISTOR 2SK302-GR-TE85L	
Q3403	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3405	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3406	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3407	8-729-027-23	TRANSISTOR DTA114EKA-T146	
Q3501	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3502	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3503	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3504	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3505	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3506	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3510	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q3511	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3512	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3513	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3514	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3515	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3516	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3517	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3518	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3519	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3520	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3521	8-729-107-46	TRANSISTOR 2SC3624A-L15	
Q3522	8-729-107-46	TRANSISTOR 2SC3624A-L15	
		< RESISTOR >	
⚠R3000	1-216-473-11	METAL OXIDE 56 5% 3W F	
R3100	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3101	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3102	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3103	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3104	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R3105	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R3106	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3107	1-216-053-00	METAL CHIP 1.5K 5% 1/10W	
R3108	1-216-017-00	METAL GLAZE 47 5% 1/10W	
R3109	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3110	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R3111	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R3112	1-216-027-00	METAL CHIP 120 5% 1/10W	
R3113	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R3114	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R3115	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R3116	1-216-121-00	METAL GLAZE 1M 5% 1/10W	
R3117	1-216-041-00	METAL CHIP 470 5% 1/10W	
R3118	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R3119	1-216-025-00	METAL GLAZE 100 5% 1/10W	
R3120	1-216-025-00	METAL GLAZE 100 5% 1/10W	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

DIGITAL

Ref. No.	Part No.	Description			Remark
R3121	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3123	1-216-041-00	METAL CHIP	470	5%	1/10W
R3124	1-216-041-00	METAL CHIP	470	5%	1/10W
R3150	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3151	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3152	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3153	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3154	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R3155	1-216-017-00	METAL GLAZE	47	5%	1/10W
R3156	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3157	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R3158	1-216-017-00	METAL GLAZE	47	5%	1/10W
R3159	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3160	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3161	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3162	1-216-027-00	METAL CHIP	120	5%	1/10W
R3163	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3300	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3301	1-216-022-00	METAL CHIP	75	5%	1/10W
R3302	1-216-109-00	METAL CHIP	330K	5%	1/10W
R3303	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3304	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3305	1-216-029-00	METAL CHIP	150	5%	1/10W
R3306	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3307	1-216-022-00	METAL CHIP	75	5%	1/10W
R3308	1-216-022-00	METAL CHIP	75	5%	1/10W
R3309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3310	1-216-022-00	METAL CHIP	75	5%	1/10W
R3311	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3312	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3313	1-216-022-00	METAL CHIP	75	5%	1/10W
R3314	1-216-022-00	METAL CHIP	75	5%	1/10W
R3315	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3316	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3317	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3318	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3319	1-216-083-00	METAL CHIP	27K	5%	1/10W
R3320	1-216-043-00	METAL GLAZE	560	5%	1/10W
R3321	1-216-024-00	METAL GLAZE	91	5%	1/10W
R3322	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3323	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3324	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3325	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3326	1-216-029-00	METAL CHIP	150	5%	1/10W
R3327	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3328	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3329	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3330	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3331	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R3332	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3333	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3334	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3335	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3336	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3337	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R3338	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3339	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3340	1-216-081-00	METAL CHIP	22K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R3341	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3342	1-216-063-00	METAL GLAZE	3.9K	5%	1/10W
R3343	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3344	1-216-093-00	METAL CHIP	68K	5%	1/10W
R3345	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3346	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3347	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3348	1-216-027-00	METAL CHIP	120	5%	1/10W
R3349	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3350	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3351	1-216-017-00	METAL GLAZE	47	5%	1/10W
R3352	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3353	1-216-025-00	METAL GLAZE	100	5%	1/10W
R3354	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3355	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3356	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3357	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3358	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3359	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3360	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3361	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3362	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3363	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3364	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3365	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3366	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3367	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3368	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3369	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3370	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3371	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3372	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3373	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3374	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3375	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3376	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3377	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3378	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3379	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3380	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3381	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3382	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3383	1-216-089-00	METAL GLAZE	47K	5%	1/10W
R3384	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3385	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3386	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3387	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3388	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3389	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3390	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3391	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3392	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3393	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3394	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3395	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3396	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3397	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3398	1-216-073-00	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R3399	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3400	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3401	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3402	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3403	1-216-097-00	METAL CHIP	100K	5%	1/10W
R3404	1-216-097-00	METAL CHIP	100K	5%	1/10W
R3405	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3406	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3407	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3408	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3409	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3410	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3411	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3412	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3413	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3414	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3415	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3416	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3417	1-216-017-00	METAL GLAZE	47	5%	1/10W
R3418	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3419	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3420	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3421	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3422	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3423	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3424	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3425	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3426	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3427	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3428	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3429	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3430	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3431	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3432	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3433	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3434	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3435	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3436	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3437	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3438	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3439	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3440	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3441	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3442	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3443	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3444	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3445	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3446	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3447	1-216-041-00	METAL CHIP	470	5%	1/10W
R3449	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3450	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3451	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3452	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3453	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3455	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3456	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3457	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3458	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3460	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3465	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3466	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3479	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3480	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3498	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3499	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3500	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3501	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3502	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3505	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3506	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3507	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3508	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3509	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3510	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3511	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3512	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3513	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3514	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3515	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3516	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3517	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3518	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3519	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3520	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3521	1-216-062-00	METAL CHIP	3.6K	5%	1/10W
R3522	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3523	1-216-054-00	METAL GLAZE	1.6K	5%	1/10W
R3524	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R3525	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R3526	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3527	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3528	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3529	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3530	1-216-085-00	METAL CHIP	33K	5%	1/10W
R3531	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3532	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3533	1-216-109-00	METAL CHIP	330K	5%	1/10W
R3534	1-216-109-00	METAL CHIP	330K	5%	1/10W
R3535	1-216-062-00	METAL CHIP	3.6K	5%	1/10W
R3536	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R3537	1-216-055-00	METAL CHIP	1.8K	5%	1/10W
R3538	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3539	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3540	1-216-054-00	METAL GLAZE	1.6K	5%	1/10W
R3541	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3542	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3543	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3544	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3545	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3546	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3547	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3548	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3549	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

DIGITAL

Ref. No.	Part No.	Description			Remark
R3550	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3551	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3552	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3553	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3554	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3555	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3556	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3557	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3558	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3559	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3560	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3561	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3562	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3563	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3564	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3565	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3566	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3567	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3568	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3569	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3570	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3571	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3572	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3573	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3574	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3575	1-216-049-11	METAL GLAZE	1K	5%	1/10W
R3576	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R3577	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3578	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3579	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3580	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3581	1-216-121-00	METAL GLAZE	1M	5%	1/10W
R3582	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3583	1-216-081-00	METAL CHIP	22K	5%	1/10W
R3584	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3585	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3586	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3587	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3588	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3589	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3590	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3591	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3592	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3593	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3594	1-216-071-00	METAL CHIP	8.2K	5%	1/10W
R3595	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3596	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3597	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3598	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3599	1-216-041-00	METAL CHIP	470	5%	1/10W
R3600	1-216-041-00	METAL CHIP	470	5%	1/10W
R3601	1-216-041-00	METAL CHIP	470	5%	1/10W
R3602	1-216-041-00	METAL CHIP	470	5%	1/10W
R3603	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3604	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3605	1-216-041-00	METAL CHIP	470	5%	1/10W
R3606	1-216-041-00	METAL CHIP	470	5%	1/10W

Ref. No.	Part No.	Description			Remark
R3607	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3608	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3609	1-216-041-00	METAL CHIP	470	5%	1/10W
R3610	1-216-041-00	METAL CHIP	470	5%	1/10W
R3611	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3612	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3613	1-216-041-00	METAL CHIP	470	5%	1/10W
R3614	1-216-041-00	METAL CHIP	470	5%	1/10W
R3615	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3616	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3617	1-216-041-00	METAL CHIP	470	5%	1/10W
R3618	1-216-041-00	METAL CHIP	470	5%	1/10W
R3619	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3620	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3621	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3622	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3623	1-216-097-00	METAL GLAZE	100K	5%	1/10W
R3626	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3627	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3628	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3629	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R3631	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3632	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3633	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3634	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3635	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3636	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3637	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3638	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3639	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3640	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3641	1-216-079-00	METAL CHIP	18K	5%	1/10W
R3642	1-216-056-00	METAL GLAZE	2K	5%	1/10W
R3650	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3651	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3652	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3653	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3654	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3655	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3656	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3657	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3658	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3659	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3660	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3661	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3662	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3663	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3664	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3665	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3666	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3667	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3668	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3669	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3670	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3671	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3672	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3673	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3674	1-216-065-00	METAL CHIP	4.7K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R3675	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3676	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3677	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3678	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3679	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3680	1-216-065-00	METAL CHIP	4.7K	5%	1/10W
R3681	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3682	1-216-295-00	CONDUCTOR, CHIP (2012)			
R3683	1-216-073-00	METAL CHIP	10K	5%	1/10W
R3684	1-216-295-00	CONDUCTOR, CHIP (2012)			
		< VARIABLE RESISTOR >			
RV3301	1-241-765-11	RES, ADJ, CARBON 22K			
		< RELAY >			
RY3401	1-515-614-11	RELAY			
		< VIBRATOR >			
X3302	1-767-434-21	VIBRATOR, CRYSTAL (18.432MHz)			
X3401	1-767-359-11	VIBRATOR, CERAMIC (4MHz)			
X3501	1-767-576-11	VIBRATOR, CRYSTAL (12.288MHz)			
**********					
*	A-4398-778-A	DISPLAY BOARD, COMPLETE (DA80ES: US, Canadian)			
*	A-4398-779-A	DISPLAY BOARD, COMPLETE (DA80ES: AUS)			
*	A-4398-780-A	DISPLAY BOARD, COMPLETE (DA80ES: E, PX)			
*	A-4398-819-A	DISPLAY BOARD, COMPLETE (V88ES/VA80ES)			
		**********			
*	4-921-941-01	CUSHION (FL)			
*	4-990-797-01	HOLDER (FL)			
		< CAPACITOR >			
C101	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C102	1-126-786-11	ELECT	47uF	20%	16V
C103	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C104	1-163-259-91	CERAMIC CHIP	220PF	5%	50V
C105	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C108	1-126-795-11	ELECT	10uF	20%	50V
C109	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C110	1-126-795-11	ELECT	10uF	20%	50V
C111	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C112	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C114	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C115	1-104-905-11	CAPACITOR	0.22F		5.5V
C116	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C117	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C119	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C120	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C121	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C122	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C123	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C124	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C125	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C126	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C127	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C128	1-126-786-11	ELECT	47uF	20%	16V
C129	1-165-319-11	CERAMIC CHIP	0.1uF		50V

Ref. No.	Part No.	Description			Remark
C130	1-124-455-00	ELECT	100uF	20%	16V
C133	1-165-319-11	CERAMIC CHIP	0.1uF		50V
C142	1-165-319-11	CERAMIC CHIP	0.1uF		50V
		< CONNECTOR >			
* CND102	1-568-949-11	PIN, CONNECTOR 11P			
* CND107	1-568-940-21	PIN, CONNECTOR 2P (DA80ES: US, Canadian)			
CNE101	1-764-342-11	PIN, CONNECTOR (PCB) (L TYPE) 5P			
CNP107	1-568-668-11	CONNECTOR, BOARD TO BOARD 6P			
CNS102	1-779-976-21	PIN, CONNECTOR 9P			
* CNS105	1-565-486-11	CONNECTOR, BOARD TO BOARD 10P			
		< DIODE >			
D102	8-719-313-43	LED SEL6210S-TH10 (STANDBY) (V88ES/VA80ES)			
D106	8-719-210-33	DIODE EC10DS2			
D107	8-719-016-74	DIODE 1SS352			
D108	8-719-313-45	LED SEL6810A-TH10 (INDEX)			
D109	8-719-313-45	LED SEL6810A-TH10 (EQ)			
D110	8-719-313-45	LED SEL6810A-TH10 (SUR)			
D111	8-719-064-56	LED SEC2484C (VIDEO 1)			
D112	8-719-064-56	LED SEC2484C (VIDEO 2)			
D113	8-719-064-56	LED SEC2484C (VIDEO 3)			
D114	8-719-064-56	LED SEC2484C (LD/DVD)			
D115	8-719-064-56	LED SEC2484C (DA80ES: TV/DBS) (V88ES/VA80ES: TV)			
D116	8-719-064-55	LED SEC1803C (TAPE)			
D117	8-719-064-55	LED SEC1803C (DAT/MD)			
D118	8-719-064-55	LED SEC1803C (CD)			
D119	8-719-064-55	LED SEC1803C (TUNER)			
D130	8-719-064-55	LED SEC1803C (PHONO)			
		< FLUORESCENT INDICATOR TUBE >			
FL101	1-517-671-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC101	8-759-075-35	IC TD62C950RF			
IC102	8-759-389-51	IC MSC1164GS-KR1			
IC104	8-759-459-84	IC NJL56H400			
IC105	8-759-457-56	IC MB90673PF-G-206-BND			
IC107	8-759-823-87	IC LB1638M			
		< CHIP CONDUCTOR >			
JW6	1-216-295-00	CONDUCTOR, CHIP (2012)			
JW12	1-216-295-00	CONDUCTOR, CHIP (2012) (DA80ES: US, Canadian)			
JW13	1-216-295-00	CONDUCTOR, CHIP (2012) (DA80ES: AUS)			
JW14	1-216-295-00	CONDUCTOR, CHIP (2012) (DA80ES: E, PX)			
JW17	1-216-295-00	CONDUCTOR, CHIP (2012) (V88ES/VA80ES)			
		< TRANSISTOR >			
Q100	8-729-027-23	TRANSISTOR DTA114EKA-T146			
Q101	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q102	8-729-027-43	TRANSISTOR DTC114EKA-T146 (V88ES/VA80ES)			
Q103	8-729-027-43	TRANSISTOR DTC114EKA-T146 (V88ES/VA80ES)			
Q104	8-729-027-43	TRANSISTOR DTC114EKA-T146			

DISPLAY

Ref. No.	Part No.	Description				Remark
Q105	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q107	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q109	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q110	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q111	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q112	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q113	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q114	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q115	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q116	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q117	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q118	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q119	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q120	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q121	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q122	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q123	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q124	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q125	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q126	8-729-027-43	TRANSISTOR	DTC114EKA-T146			
Q127	8-729-216-22	TRANSISTOR	2SA1162-G			
		< RESISTOR >				
R102	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R103	1-216-029-00	METAL CHIP	150	5%	1/10W	
R105	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R106	1-216-037-00	METAL CHIP	330	5%	1/10W	(V88ES/VA80ES)
R107	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R108	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R116	1-216-037-00	METAL CHIP	330	5%	1/10W	
R117	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R118	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R119	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R120	1-216-306-11	METAL CHIP	3.9K	5%	1/10W	
R121	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R122	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R123	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R124	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R125	1-216-037-00	METAL CHIP	330	5%	1/10W	
R126	1-216-029-00	METAL CHIP	150	5%	1/10W	
R127	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R128	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R129	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R132	1-216-033-00	METAL CHIP	220	5%	1/10W	
⚠R133	1-249-385-11	CARBON	2.2	5%	1/6W	F
R135	1-216-037-00	METAL CHIP	330	5%	1/10W	
R136	1-216-037-00	METAL CHIP	330	5%	1/10W	
R137	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R138	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
⚠R139	1-249-385-11	CARBON	2.2	5%	1/6W	F
R140	1-216-073-00	METAL CHIP	10K	5%	1/10W	
R144	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R145	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R147	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R148	1-216-089-00	METAL GLAZE	47K	5%	1/10W	
R150	1-216-081-00	METAL CHIP	22K	5%	1/10W	

Ref. No.	Part No.	Description				Remark
R151	1-216-081-00	METAL CHIP	22K	5%	1/10W	
R152	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R160	1-216-049-11	METAL GLAZE	1K	5%	1/10W	(DA80ES: US, Canadian)
R169	1-216-037-00	METAL CHIP	330	5%	1/10W	
R170	1-216-041-00	METAL CHIP	470	5%	1/10W	
R171	1-216-045-00	METAL CHIP	680	5%	1/10W	
R172	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R173	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R174	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R175	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	
R176	1-216-037-00	METAL CHIP	330	5%	1/10W	
R177	1-216-041-00	METAL CHIP	470	5%	1/10W	
R178	1-216-045-00	METAL CHIP	680	5%	1/10W	
R179	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R180	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	
R181	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	
R191	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R192	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R193	1-216-049-11	METAL GLAZE	1K	5%	1/10W	(DA80ES: US, Canadian)
R194	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R195	1-216-097-00	METAL GLAZE	100K	5%	1/10W	
R196	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R197	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R198	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
R199	1-216-049-11	METAL GLAZE	1K	5%	1/10W	
RR11	1-216-037-00	METAL CHIP	330	5%	1/10W	
RR12	1-216-041-00	METAL CHIP	470	5%	1/10W	
RR13	1-216-045-00	METAL CHIP	680	5%	1/10W	(DA80ES: E, AUS, PX/V88ES/VA80ES)
RR14	1-216-049-11	METAL GLAZE	1K	5%	1/10W	(DA80ES: E, PX/V88ES/VA80ES)
RR15	1-216-053-00	METAL CHIP	1.5K	5%	1/10W	(V88ES/VA80ES)
RR16	1-216-057-00	METAL CHIP	2.2K	5%	1/10W	(V88ES/VA80ES)
RR17	1-216-065-00	METAL CHIP	4.7K	5%	1/10W	(V88ES/VA80ES)
		< SWITCH >				
S101	1-572-184-11	SWITCH, KEYBOARD (EQUALIZER CH)				
S102	1-572-184-11	SWITCH, KEYBOARD (DPC MODE)				
S103	1-572-184-11	SWITCH, KEYBOARD (<)				
S104	1-572-184-11	SWITCH, KEYBOARD (∨)				
S105	1-572-184-11	SWITCH, KEYBOARD (∧)				
S106	1-572-184-11	SWITCH, KEYBOARD (>)				
S107	1-572-184-11	SWITCH, KEYBOARD (SET UP)				
S108	1-572-184-11	SWITCH, KEYBOARD (OPEN/CLOSE)				
S109	1-572-184-11	SWITCH, KEYBOARD (EQUALIZER BAND)				
S110	1-572-184-11	SWITCH, KEYBOARD (DA80ES: TUNING +) (V88ES/VA80ES: EQUALIZER ON/OFF)				
S111	1-572-184-11	SWITCH, KEYBOARD (DA80ES: TUNING –) (V88ES/VA80ES: SOUND FIELD STANDARD)				
S112	1-572-184-11	SWITCH, KEYBOARD (DA80ES: FM MODE) (V88ES/VA80ES: SLEEP)				
S113	1-572-184-11	SWITCH, KEYBOARD (DA80ES: MEMORY) (V88ES/VA80ES: DIMMER)				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description			Remark
S114	1-572-184-11	SWITCH, KEYBOARD (DISPLAY)			
S136	1-554-118-00	SWITCH, PUSH (1 KEY) (POWER) (V88ES/VA80ES)			
S137	1-572-184-11	SWITCH, KEYBOARD (POWER) (DA80ES)			
		< VIBRATOR >			
X100	1-767-359-11	VIBRATOR, CERAMIC (4MHz)			
**********					
*	1-666-305-11	F.VIDEO BOARD **********			
		< CAPACITOR >			
C299	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CND299	1-568-940-21	PIN, CONNECTOR 2P			
CNE290	1-770-968-11	PIN, CONNECTOR (PCB) (V TYPE) 8P			
		< JACK >			
J298	1-779-689-11	TERMINAL, S (VIDEO 3 INPUT S-VIDEO)			
J299	1-779-798-11	JACK, PIN (BLOCK) (L TYPE) 3P (VIDEO 3 INPUT AUDIO/VIDEO)			
		< RESISTOR >			
R248	1-249-403-11	CARBON	68	5%	1/4W
R298	1-249-403-11	CARBON	68	5%	1/4W
R299	1-249-403-11	CARBON	68	5%	1/4W
**********					
*	1-666-304-11	HP BOARD *********			
		< CONNECTOR >			
CNE100	1-764-341-11	PIN, CONNECTOR (PCB) (L TYPE) 4P			
		< JACK >			
J100	1-568-519-41	JACK, LARGE TYPE (PHONES)			
		< RESISTOR >			
R178	1-247-749-11	CARBON	560	5%	1/2W
R179	1-247-749-11	CARBON	560	5%	1/2W
**********					
*	A-4398-782-A	INPUT BOARD, COMPLETE (DA80ES)			
*	A-4398-823-A	INPUT BOARD, COMPLETE (V88ES/VA80ES) **********			
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3			
		< CAPACITOR >			
C001	1-126-047-81	ELECT	4.7uF	20%	50V
C002	1-110-335-11	MYLAR	100PF	5%	50V
C003	1-107-608-11	CERAMIC	68PF	5%	500V
C004	1-107-601-11	CERAMIC	33PF	5%	500V
C005	1-124-995-11	ELECT	220uF	20%	10V
C014	1-102-937-00	CERAMIC	4PF	±0.25PF	50V
C201	1-126-047-81	ELECT	4.7uF	20%	50V
C202	1-102-106-00	CERAMIC	100PF	10%	50V

Ref. No.	Part No.	Description			Remark
C203	1-162-282-31	CERAMIC	100PF	10%	50V
C204	1-126-008-51	ELECT	47uF	20%	16V
C205	1-130-480-00	MYLAR	0.0056uF	5%	50V
C206	1-130-473-00	MYLAR	0.0015uF	5%	50V
C207	1-126-044-11	ELECT	1uF	20%	50V
C208	1-126-008-51	ELECT	47uF	20%	16V
C211	1-126-021-11	ELECT	33uF	20%	25V
C217	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C218	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C219	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C220	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C221	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C222	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C224	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C225	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C226	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C227	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C228	1-162-286-31	CERAMIC	220PF	10%	50V
C248	1-126-023-11	ELECT	100uF	20%	25V
C249	1-126-023-11	ELECT	100uF	20%	25V
C251	1-126-047-81	ELECT	4.7uF	20%	50V
C252	1-102-106-00	CERAMIC	100PF	10%	50V
C253	1-162-282-31	CERAMIC	100PF	10%	50V
C254	1-126-008-51	ELECT	47uF	20%	16V
C255	1-130-480-00	MYLAR	0.0056uF	5%	50V
C256	1-130-473-00	MYLAR	0.0015uF	5%	50V
C257	1-126-044-11	ELECT	1uF	20%	50V
C258	1-126-008-51	ELECT	47uF	20%	16V
C261	1-126-021-11	ELECT	33uF	20%	25V
C267	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C268	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C269	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C270	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C271	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C272	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C274	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C275	1-162-282-31	CERAMIC	100PF	10%	50V (VA80ES: AEP, UK, G, EE, CIS)
C278	1-162-286-31	CERAMIC	220PF	10%	50V
C297	1-162-294-31	CERAMIC	0.001uF	10%	50V
C516	1-126-048-81	ELECT	10MF	20%	50V
C563	1-126-048-81	ELECT	10MF	20%	50V

INPUT

Ref. No.	Part No.	Description			Remark
C601	1-126-047-81	ELECT	4.7uF	20%	50V
C602	1-110-335-11	MYLAR	100PF	5%	50V
C603	1-107-608-11	CERAMIC	68PF	5%	500V
C604	1-107-601-11	CERAMIC	33PF	5%	500V
C605	1-124-995-11	ELECT	220uF	20%	10V
C614	1-102-937-00	CERAMIC	4PF	±0.25PF	50V
C651	1-126-047-81	ELECT	4.7uF	20%	50V
C652	1-110-335-11	MYLAR	100PF	5%	50V
C653	1-107-608-11	CERAMIC	68PF	5%	500V
C654	1-107-601-11	CERAMIC	33PF	5%	500V
C655	1-124-995-11	ELECT	220uF	20%	10V
C664	1-102-937-00	CERAMIC	4PF	±0.25PF	50V
C701	1-126-963-11	ELECT	4.7uF	20%	50V
C702	1-162-282-31	CERAMIC	100PF	10%	50V (DA80ES)
C703	1-126-923-11	ELECT	220uF	20%	10V
C704	1-102-233-00	CERAMIC	33PF	10%	500V
C705	1-126-063-11	ELECT	100uF	20%	63V (V88ES/VA80ES)
C705	1-128-563-11	ELECT	100uF	20%	100V (DA80ES)
C706	1-126-063-11	ELECT	100uF	20%	63V (V88ES/VA80ES)
C706	1-128-563-11	ELECT	100uF	20%	100V (DA80ES)
C714	1-162-193-31	CERAMIC	3.3PF	10%	50V
C751	1-126-963-11	ELECT	4.7uF	20%	50V
C752	1-162-282-31	CERAMIC	100PF	10%	50V (DA80ES)
C753	1-126-923-11	ELECT	220uF	20%	10V
C754	1-102-233-00	CERAMIC	33PF	10%	500V
C764	1-162-193-31	CERAMIC	3.3PF	10%	50V
C920	1-136-153-00	FILM	0.01uF	5%	50V
C921	1-136-153-00	FILM	0.01uF	5%	50V
C922	1-136-153-00	FILM	0.01uF	5%	50V
C971	1-126-947-11	ELECT	47uF	20%	35V
C972	1-126-947-11	ELECT	47uF	20%	35V
C975	1-126-041-11	ELECT	2200uF	20%	35V
C976	1-126-041-11	ELECT	2200uF	20%	35V
C977	1-128-547-11	ELECT	6800uF	20%	16V
C978	1-126-023-11	ELECT	100uF	20%	25V
C979	1-126-023-11	ELECT	100uF	20%	25V
C980	1-126-023-11	ELECT	100uF	20%	25V
C983	1-126-023-11	ELECT	100uF	20%	25V
		< CONNECTOR >			
CNE620	1-770-966-11	PIN, CONNECTOR (PCB) (V TYPE) 6P			
CNE621	1-770-967-11	PIN, CONNECTOR (PCB) (V TYPE) 7P			
CNE622	1-770-969-11	PIN, CONNECTOR (PCB) (V TYPE) 9P			
CNE939	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			
CNP201	1-695-091-11	PIN, CONNECTOR (PC BOARD) 15P (DA80ES)			
CNP202	1-779-799-11	PIN, CONNECTOR 9P			
CNP203	1-695-088-11	PIN, CONNECTOR (PC BOARD) 9P			
CNP204	1-695-087-11	PIN, CONNECTOR (PC BOARD) 7P			
CNS202	1-569-060-11	SOCKET, CONNECTOR 11P (V88ES/VA80ES)			
		< DIODE >			
D201	8-719-987-63	DIODE 1N4148M			
D202	8-719-987-63	DIODE 1N4148M			
D908	8-719-028-23	DIODE D3SBA20-4101			
D912	8-719-024-99	DIODE 11ES2-NTA2B			
D913	8-719-024-99	DIODE 11ES2-NTA2B			
D914	8-719-024-99	DIODE 11ES2-NTA2B			
D915	8-719-024-99	DIODE 11ES2-NTA2B			
		< EARTH TERMINAL >			
* EB201	1-537-738-21	TERMINAL, EARTH			
		< IC >			
IC001	8-749-011-16	IC STK350-230			
IC201	8-759-636-74	IC M5218AP-22			
IC202	8-759-805-13	IC LC7821			
IC203	8-759-636-74	IC M5218AP-22			
IC253	8-759-636-74	IC M5218AP-22			
IC601	8-749-011-16	IC STK350-230			
IC651	8-749-011-16	IC STK350-230			
IC701	8-759-326-52	IC uPC2581V			
IC971	8-759-982-15	IC RC7815FA			
IC972	8-759-701-89	IC NJM7915FA			
IC973	8-759-231-53	IC TA7805S			
IC974	8-759-231-53	IC TA7805S			
		< JACK >			
J201	1-774-727-11	JACK, PIN 2P (PHONO IN)			
J201	1-778-064-11	JACK, PIN 4P (TUNER IN) (V88ES/VA80ES)			
J202	1-778-064-11	JACK, PIN 4P (DAT/MD IN/REC OUT)			
J203	1-779-493-11	JACK, PIN 6P (PRE OUT CENTER/WOOFER/REAR/FRONT)			
J204	1-778-064-11	JACK, PIN 4P (TAPE IN/REC OUT)			
J205	1-784-035-11	JACK, PIN 1P (PRE OUT WOOFER)			
J207	1-774-727-11	JACK, PIN 2P (CD IN)			
		< TRANSISTOR >			
Q201	8-729-141-30	TRANSISTOR 2SC3623A-LK			
Q202	8-729-900-63	TRANSISTOR DTA124ES			
Q203	8-729-119-79	TRANSISTOR 2SC2785-FEK			
Q204	8-729-900-36	TRANSISTOR DTC124ES			
Q251	8-729-141-30	TRANSISTOR 2SC3623A-LK			
		< RESISTOR >			
R001	1-259-167-21	CARBON	1K	5%	1/4W
R002	1-259-209-81	CARBON	56K	1%	1/4W
R003	1-259-143-21	CARBON	100	1%	1/4W
R004	1-249-413-11	CARBON	470	5%	1/4W
R014	1-259-209-81	CARBON	56K	1%	1/4W
R201	1-249-409-11	CARBON	220	5%	1/4W
R202	1-249-441-11	CARBON	100K	5%	1/4W
R203	1-249-441-11	CARBON	100K	5%	1/4W
R204	1-249-416-11	CARBON	820	5%	1/4W
R205	1-247-897-11	CARBON	560K	5%	1/4W
R206	1-249-437-11	CARBON	47K	5%	1/4W
R207	1-249-441-11	CARBON	100K	5%	1/4W
R208	1-247-807-31	CARBON	100	5%	1/4W
R209	1-249-417-11	CARBON	1K	5%	1/4W (V88ES/VA80ES)

Ref. No.	Part No.	Description			Remark
R210	1-249-417-11	CARBON	1K	5%	1/4W
R211	1-249-417-11	CARBON	1K	5%	1/4W
R212	1-249-417-11	CARBON	1K	5%	1/4W
R213	1-249-417-11	CARBON	1K	5%	1/4W
R214	1-249-417-11	CARBON	1K	5%	1/4W
R216	1-249-441-11	CARBON	100K	5%	1/4W
R220	1-249-429-11	CARBON	10K	5%	1/4W
R228	1-249-441-11	CARBON	100K	5%	1/4W
R232	1-249-409-11	CARBON	220	5%	1/4W
R233	1-249-421-11	CARBON	2.2K	5%	1/4W
			(DA80ES/V88ES/VA80ES: E, MY, SP)		
R234	1-249-421-11	CARBON	2.2K	5%	1/4W
			(DA80ES/V88ES/VA80ES: E, MY, SP)		
R235	1-249-417-11	CARBON	1K	5%	1/4W
R236	1-249-417-11	CARBON	1K	5%	1/4W
R237	1-249-417-11	CARBON	1K	5%	1/4W
R238	1-249-433-11	CARBON	22K	5%	1/4W
R239	1-249-417-11	CARBON	1K	5%	1/4W
R240	1-249-441-11	CARBON	100K	5%	1/4W
R241	1-249-429-11	CARBON	10K	5%	1/4W
R242	1-249-429-11	CARBON	10K	5%	1/4W
R243	1-247-807-31	CARBON	100	5%	1/4W
R244	1-247-807-31	CARBON	100	5%	1/4W
R245	1-249-421-11	CARBON	2.2K	5%	1/4W
			(DA80ES/V88ES/VA80ES: E, MY, SP)		
R246	1-249-421-11	CARBON	2.2K	5%	1/4W
			(DA80ES/V88ES/VA80ES: E, MY, SP)		
R247	1-249-417-11	CARBON	1K	5%	1/4W
R249	1-249-421-11	CARBON	2.2K	5%	1/4W
			(DA80ES/V88ES/VA80ES: E, MY, SP)		
R251	1-249-409-11	CARBON	220	5%	1/4W
R252	1-249-441-11	CARBON	100K	5%	1/4W
R253	1-249-441-11	CARBON	100K	5%	1/4W
R254	1-249-416-11	CARBON	820	5%	1/4W
R255	1-247-897-11	CARBON	560K	5%	1/4W
R256	1-249-437-11	CARBON	47K	5%	1/4W
R257	1-249-441-11	CARBON	100K	5%	1/4W
R258	1-247-807-31	CARBON	100	5%	1/4W
R259	1-249-417-11	CARBON	1K	5%	1/4W
					(V88ES/VA80ES)
R260	1-249-417-11	CARBON	1K	5%	1/4W
R261	1-249-417-11	CARBON	1K	5%	1/4W
R262	1-249-417-11	CARBON	1K	5%	1/4W
R263	1-249-417-11	CARBON	1K	5%	1/4W
R264	1-249-417-11	CARBON	1K	5%	1/4W
R266	1-249-441-11	CARBON	100K	5%	1/4W
R270	1-249-429-11	CARBON	10K	5%	1/4W
R278	1-249-437-11	CARBON	47K	5%	1/4W
R279	1-249-441-11	CARBON	100K	5%	1/4W
R282	1-249-409-11	CARBON	220	5%	1/4W
R283	1-249-417-11	CARBON	1K	5%	1/4W
R284	1-249-417-11	CARBON	1K	5%	1/4W
R285	1-249-417-11	CARBON	1K	5%	1/4W
R286	1-249-417-11	CARBON	1K	5%	1/4W
R287	1-249-417-11	CARBON	1K	5%	1/4W
R288	1-249-417-11	CARBON	1K	5%	1/4W
R289	1-249-417-11	CARBON	1K	5%	1/4W
R293	1-249-418-11	CARBON	1.2K	5%	1/4W
R294	1-249-418-11	CARBON	1.2K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R297	1-249-425-11	CARBON	4.7K	5%	1/4W
R601	1-259-167-21	CARBON	1K	5%	1/4W
R602	1-259-209-81	CARBON	56K	1%	1/4W
R603	1-249-911-11	CARBON	330	1%	1/4W
R604	1-249-413-11	CARBON	470	5%	1/4W
R614	1-259-209-81	CARBON	56K	1%	1/4W
R651	1-259-167-21	CARBON	1K	5%	1/4W
R652	1-259-209-81	CARBON	56K	1%	1/4W
R653	1-249-911-11	CARBON	330	1%	1/4W
R654	1-249-413-11	CARBON	470	5%	1/4W
R664	1-259-209-81	CARBON	56K	1%	1/4W
R701	1-249-417-11	CARBON	1K	5%	1/4W
R702	1-259-209-81	CARBON	56K	1%	1/4W
R703	1-259-143-21	CARBON	100	1%	1/4W
R704	1-249-432-11	CARBON	18K	5%	1/4W
R714	1-259-209-81	CARBON	56K	1%	1/4W
R751	1-249-417-11	CARBON	1K	5%	1/4W
R752	1-259-209-81	CARBON	56K	1%	1/4W
R753	1-259-143-21	CARBON	100	1%	1/4W
R764	1-259-209-81	CARBON	56K	1%	1/4W
⚠R975	1-215-907-11	METAL OXIDE	22	5%	3W F
⚠R976	1-215-907-11	METAL OXIDE	22	5%	3W F
⚠R987	1-215-907-11	METAL OXIDE	22	5%	3W F
		< RELAY >			
RY201	1-515-614-11	RELAY			
RY202	1-515-614-11	RELAY			
**********					
*	1-666-313-11	MOTOR TM BOARD			
		**********			
		< CAPACITOR >			
C113	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
* CND104	1-568-951-11	PIN, CONNECTOR 2P			
**********					
*	1-666-302-11	PTA BOARD			
		*********			
	1-533-293-11	HOLDER, FUSE			
		< CAPACITOR >			
C981	1-126-964-11	ELECT	10uF	20%	50V
C982	1-126-964-11	ELECT	10uF	20%	50V
C989	1-128-564-11	ELECT	220uF	20%	100V
		< CONNECTOR >			
CNE934	1-770-964-11	PIN, CONNECTOR (PCB) (V TYPE) 4P			
CNV953	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P			
		< DIODE >			
D916	8-719-987-63	DIODE 1N4148M (DA80ES)			
D918	8-719-024-99	DIODE 11ES2-NTA2B			
D919	8-719-024-99	DIODE 11ES2-NTA2B			
D921	8-719-002-76	DIODE UZL-36H			

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PTA **PTB** **S VIDEO**

Ref. No.	Part No.	Description			Remark
		< FUSE >			
⚠F911	1-533-919-11	FUSE, TIME LAG (12A/250V)			
⚠F912	1-533-919-11	FUSE, TIME LAG (12A/250V)			
		< TRANSISTOR >			
Q971	8-729-140-96	TRANSISTOR 2SD774-34			
		< RESISTOR >			
⚠R977	1-249-405-11	CARBON	100	5%	1/4W F
⚠R978	1-247-727-11	CARBON	10	5%	1/2W F
R979	1-249-426-11	CARBON	5.6K	5%	1/4W
		< RELAY >			
RY902	1-515-894-11	RELAY (DA80ES: US, E, AUS, PX)			
RY903	1-755-235-11	RELAY (DA80ES: Canadian)			
RY904	1-755-235-11	RELAY (DA80ES: Canadian)			
**********					
*	1-666-303-11	PTB BOARD *********			
	1-533-293-11	HOLDER, FUSE			
		< CAPACITOR >			
C914	1-126-947-11	ELECT	47uF	20%	35V
		< CONNECTOR >			
CNE932	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			
CNE951	1-770-964-11	PIN, CONNECTOR (PCB) (V TYPE) 4P			
CNE953	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P			
		< DIODE >			
D917	8-719-014-66	DIODE UZP-5.6B			
		< FUSE >			
⚠F913	1-532-503-51	FUSE, TIME LAG (1.6A/250V) (DA80ES: E, AUS ,PX/V88ES/VA80ES)			
⚠F913	1-533-614-11	FUSE, GLASS CYLINDERICAL (1.6A/125V) (DA80ES: US, Canadian)			
⚠F914	1-532-503-51	FUSE, TIME LAG (1.6A/250V) (DA80ES: E, AUS ,PX/V88ES/VA80ES)			
⚠F914	1-533-614-11	FUSE, GLASS CYLINDERICAL (1.6A/125V) (DA80ES: US, Canadian)			
⚠F915	1-532-465-51	FUSE, TIME LAG (3.15A/250V) (DA80ES: E, AUS ,PX/V88ES/VA80ES)			
⚠F915	1-533-690-11	FUSE, GLASS CYLINDERICAL (DIA.5) (3.15A/125V) (DA80ES: US, Canadian)			
**********					
*	A-4398-773-A	S VIDEO BOARD, COMPLETE (DA80ES: US, Canadian)			
*	A-4398-774-A	S VIDEO BOARD, COMPLETE (DA80ES: E, AUS, PX/V88ES/VA80ES) **********			
		< CAPACITOR >			
C805	1-136-165-00	FILM	0.1uF	5%	50V
C809	1-164-095-11	CERAMIC	0.01uF	10%	16V
C810	1-126-960-11	ELECT	1uF	20%	50V
C814	1-136-165-00	FILM	0.1uF	5%	50V
C817	1-164-159-11	CERAMIC	0.1uF		50V
C821	1-164-095-11	CERAMIC	0.01uF	10%	16V
C822	1-126-960-11	ELECT	1uF	20%	50V
C823	1-136-165-00	FILM	0.1uF	5%	50V
C825	1-164-095-11	CERAMIC	0.01uF	10%	16V
C826	1-126-964-11	ELECT	10uF	20%	50V
C827	1-126-964-11	ELECT	10uF	20%	50V
C828	1-126-964-11	ELECT	10uF	20%	50V
C829	1-126-960-11	ELECT	1uF	20%	50V
C833	1-126-960-11	ELECT	1uF	20%	50V
C834	1-136-165-00	FILM	0.1uF	5%	50V
C845	1-136-165-00	FILM	0.1uF	5%	50V
C846	1-126-967-11	ELECT	47uF	20%	16V
C878	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
* CND801	1-568-935-11	PIN, CONNECTOR 8P			
* CND803	1-568-951-11	PIN, CONNECTOR 2P (DA80ES: US, Canadian)			
CNE807	1-770-965-11	PIN, CONNECTOR (PCB) (V TYPE) 5P			
CNS805	1-695-093-11	SOCKET, CONNECTOR 9P			
		< DIODE >			
D810	8-719-987-63	DIODE 1N4148M (DA80ES: US, Canadian)			
		< IC >			
IC803	8-759-061-95	IC SN761200			
IC804	8-759-061-95	IC SN761200			
		< JACK/CONNECTOR >			
J802	1-563-330-11	JACK (S-LINK) (DA80ES: US, Canadian)			
J804	1-779-800-11	TERMINAL, S (MONITOR S VIDEO OUT)			
J805	1-779-801-11	CONNECTOR (ROUND TYPE) (DA80ES: TV/DBS S VIDEO IN, LD/DVD S VIDEO IN) (V88ES/VA80ES: TV S VIDEO IN, LD/DVD S VIDEO IN)			
J806	1-779-801-11	CONNECTOR (ROUND TYPE) (VIDEO 2 S VIDEO IN/OUT)			
J807	1-779-801-11	CONNECTOR (ROUND TYPE) (VIDEO 1 S VIDEO IN/OUT)			
		< COIL >			
L803	1-410-509-11	INDUCTOR 10uH			
		< TRANSISTOR >			
Q804	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q805	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q806	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q807	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q808	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q809	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q810	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q811	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q812	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q813	8-729-900-36	TRANSISTOR DTC124ES			
Q820	8-729-620-05	TRANSISTOR 2SC2603-EF (DA80ES: US, Canadian)			

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Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R806	1-247-807-31	CARBON	100	5%	1/4W
R815	1-249-403-11	CARBON	68	5%	1/4W
R818	1-249-403-11	CARBON	68	5%	1/4W
R819	1-249-403-11	CARBON	68	5%	1/4W
R820	1-249-409-11	CARBON	220	5%	1/4W
R821	1-249-409-11	CARBON	220	5%	1/4W
R823	1-249-409-11	CARBON	220	5%	1/4W
R824	1-249-409-11	CARBON	220	5%	1/4W
R825	1-249-403-11	CARBON	68	5%	1/4W
R827	1-249-403-11	CARBON	68	5%	1/4W
R828	1-249-411-11	CARBON	330	5%	1/4W
R829	1-249-411-11	CARBON	330	5%	1/4W
R830	1-249-411-11	CARBON	330	5%	1/4W
R831	1-249-403-11	CARBON	68	5%	1/4W
R833	1-249-426-11	CARBON	5.6K	5%	1/4W
R834	1-249-426-11	CARBON	5.6K	5%	1/4W
R835	1-249-426-11	CARBON	5.6K	5%	1/4W
R838	1-249-403-11	CARBON	68	5%	1/4W
R839	1-249-403-11	CARBON	68	5%	1/4W
R840	1-249-403-11	CARBON	68	5%	1/4W
R841	1-249-403-11	CARBON	68	5%	1/4W
R843	1-249-419-11	CARBON	1.5K	5%	1/4W
R844	1-249-419-11	CARBON	1.5K	5%	1/4W
R845	1-249-419-11	CARBON	1.5K	5%	1/4W
R847	1-249-403-11	CARBON	68	5%	1/4W
R848	1-249-403-11	CARBON	68	5%	1/4W
R849	1-249-403-11	CARBON	68	5%	1/4W
R851	1-249-403-11	CARBON	68	5%	1/4W
R854	1-249-431-11	CARBON	15K	5%	1/4W
R855	1-249-431-11	CARBON	15K	5%	1/4W
R856	1-249-431-11	CARBON	15K	5%	1/4W
R857	1-249-403-11	CARBON	68	5%	1/4W
R864	1-247-807-31	CARBON	100	5%	1/4W
R891	1-249-429-11	CARBON	10K	5%	1/4W (DA80ES: US, Canadian)
R893	1-249-429-11	CARBON	10K	5%	1/4W (DA80ES: US, Canadian)
R894	1-249-425-11	CARBON	4.7K	5%	1/4W (DA80ES: US, Canadian)
R8007	1-249-409-11	CARBON	220	5%	1/4W
R8011	1-249-409-11	CARBON	220	5%	1/4W
R8055	1-249-403-11	CARBON	68	5%	1/4W
R8056	1-249-403-11	CARBON	68	5%	1/4W
**********					
*	1-666-314-11	SENSOR BOARD			
		**********			
		< CONNECTOR >			
* CND103	1-568-942-11	PIN, CONNECTOR 4P			
		< PHOTO INTERRUPTER >			
PH101	8-749-011-97	PHOTO INTERUPTER GP1S93			
PH102	8-749-011-97	PHOTO INTERUPTER GP1S93			
**********					

Ref. No.	Part No.	Description			Remark
*	1-666-330-11	SP SW BOARD			
		**********			
		< CONNECTOR >			
CNS107	1-568-662-11	CONNECTOR, BOARD TO BOARD 6P			
		< DIODE >			
D140	8-719-820-05	DIODE 1SS181			
		< RESISTOR >			
R182	1-216-037-00	METAL CHIP	330	5%	1/10W (DA80ES)
R183	1-216-041-00	METAL CHIP	470	5%	1/10W (DA80ES)
R184	1-216-045-00	METAL CHIP	680	5%	1/10W (DA80ES)
		< SWITCH >			
S116	1-572-184-11	SWITCH, KEYBOARD (FM/AM) (DA80ES)			
S117	1-572-184-11	SWITCH, KEYBOARD (SHIFT) (DA80ES)			
S118	1-572-184-11	SWITCH, KEYBOARD (PRESET TUNING –) (DA80ES)			
S119	1-572-184-11	SWITCH, KEYBOARD (PRESET TUNING +) (DA80ES)			
S135	1-762-268-11	SWITCH, ROTARY (SPEAKERS)			
**********					
*	A-4398-793-A	SP TM BOARD, COMPLETE (DA80ES)			
*	A-4398-827-A	SP TM BOARD, COMPLETE (V88ES/VA80ES)			
		**********			
		SP TM (A) BOARD			
		**********			
		SP TM (B) BOARD			
		**********			
		< CAPACITOR >			
C007	1-162-286-31	CERAMIC	220PF	10% 50V	(V88ES/VA80ES)
C009	1-136-153-00	FILM	0.01uF	5% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C021	1-136-157-00	FILM	0.022uF	5% 50V	
C607	1-162-286-31	CERAMIC	220PF	10% 50V	(V88ES/VA80ES)
C609	1-136-153-00	FILM	0.01uF	5% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C615	1-136-153-00	FILM	0.01uF	5% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C621	1-136-157-00	FILM	0.022uF	5% 50V	
C657	1-162-286-31	CERAMIC	220PF	10% 50V	(V88ES/VA80ES)
C659	1-136-153-00	FILM	0.01uF	5% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C665	1-136-153-00	FILM	0.01uF	5% 50V	(VA80ES: AEP, UK, G, EE, CIS)
C671	1-136-157-00	FILM	0.022uF	5% 50V	
C707	1-162-286-31	CERAMIC	220PF	10% 50V	(V88ES/VA80ES)
C709	1-136-153-00	FILM	0.01uF	5% 50V	
C721	1-136-157-00	FILM	0.022uF	5% 50V	

Ref. No.	Part No.	Description				Remark
C757	1-162-286-31	CERAMIC	220PF	10%	50V	(V88ES/VA80ES)
C759	1-136-153-00	FILM	0.01uF	5%	50V	
C771	1-136-157-00	FILM	0.022uF	5%	50V	
		< CONNECTOR >				
CND621	1-779-977-11	PIN, CONNECTOR 6P				
CNE601	1-770-963-11	PIN, CONNECTOR (PCB) (V TYPE) 3P				
CNE602	1-779-978-11	PIN, CONNECTOR 3P (DA80ES)				
CNS623	1-695-092-11	SOCKET, CONNECTOR 7P				
CNV615	1-778-145-11	PIN, CONNECTOR (PC BOARD) 6P				
CNV616	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P				
		< DIODE >				
D010	8-719-987-63	DIODE 1N4148M				
D601	8-719-987-63	DIODE 1N4148M				
D610	8-719-987-63	DIODE 1N4148M				
D660	8-719-987-63	DIODE 1N4148M				
D710	8-719-987-63	DIODE 1N4148M				
		< COIL >				
L001	1-411-906-11	COIL, AIR-CORE				
L601	1-411-906-11	COIL, AIR-CORE				
L651	1-411-906-11	COIL, AIR-CORE				
L701	1-411-906-11	COIL, AIR-CORE				
L751	1-411-906-11	COIL, AIR-CORE				
		< TRANSISTOR >				
Q008	8-729-119-79	TRANSISTOR 2SC2785-FEK				
Q603	8-729-119-79	TRANSISTOR 2SC2785-FEK				
Q608	8-729-119-79	TRANSISTOR 2SC2785-FEK				
Q653	8-729-119-79	TRANSISTOR 2SC2785-FEK (DA80ES)				
Q658	8-729-119-79	TRANSISTOR 2SC2785-FEK				
Q708	8-729-119-79	TRANSISTOR 2SC2785-FEK				
		< RESISTOR >				
⚠R009	1-219-153-11	FUSIBLE	10	5%	1/4W F	(VA80ES: AEP, UK, G, EE, CIS)
⚠R024	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R025	1-249-389-11	CARBON	4.7	5%	1/4W F	
R026	1-249-435-11	CARBON	33K	5%	1/4W	
R030	1-249-425-11	CARBON	4.7K	5%	1/4W	
R031	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R032	1-249-393-11	CARBON	10	5%	1/4W F	
R050	1-249-425-11	CARBON	4.7K	5%	1/4W	(DA80ES)
R051	1-249-429-11	CARBON	10K	5%	1/4W	(DA80ES)
⚠R052	1-249-393-11	CARBON	10	5%	1/4W F	(DA80ES)
R233	1-249-417-11	CARBON	1K	5%	1/4W	(VA80ES: AEP, UK, G, EE, CIS)
R234	1-249-417-11	CARBON	1K	5%	1/4W	(VA80ES: AEP, UK, G, EE, CIS)
R245	1-249-417-11	CARBON	1K	5%	1/4W	(VA80ES: AEP, UK, G, EE, CIS)
R246	1-249-417-11	CARBON	1K	5%	1/4W	(VA80ES: AEP, UK, G, EE, CIS)
R249	1-249-417-11	CARBON	1K	5%	1/4W	(VA80ES: AEP, UK, G, EE, CIS)
R608	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R609	1-219-153-11	FUSIBLE	10	5%	1/4W F	(VA80ES: AEP, UK, G, EE, CIS)
⚠R616	1-219-153-11	FUSIBLE	10	5%	1/4W F	(VA80ES: AEP, UK, G, EE, CIS)
R617	1-249-417-11	CARBON	1K	5%	1/4W	
⚠R624	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R625	1-249-389-11	CARBON	4.7	5%	1/4W F	
R626	1-249-435-11	CARBON	33K	5%	1/4W	
R630	1-249-425-11	CARBON	4.7K	5%	1/4W	
R631	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R632	1-249-393-11	CARBON	10	5%	1/4W F	
⚠R659	1-219-153-11	FUSIBLE	10	5%	1/4W F	(VA80ES: AEP, UK, G, EE, CIS)
⚠R666	1-219-153-11	FUSIBLE	10	5%	1/4W F	(VA80ES: AEP, UK, G, EE, CIS)
⚠R674	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R675	1-249-389-11	CARBON	4.7	5%	1/4W F	
R676	1-249-435-11	CARBON	33K	5%	1/4W	
R680	1-249-425-11	CARBON	4.7K	5%	1/4W	
R681	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R682	1-249-393-11	CARBON	10	5%	1/4W F	
⚠R709	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R724	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R725	1-249-389-11	CARBON	4.7	5%	1/4W F	
R726	1-249-435-11	CARBON	33K	5%	1/4W	
R730	1-249-425-11	CARBON	4.7K	5%	1/4W	
R731	1-249-429-11	CARBON	10K	5%	1/4W	
⚠R732	1-249-393-11	CARBON	10	5%	1/4W F	
⚠R759	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R774	1-219-153-11	FUSIBLE	10	5%	1/4W F	
⚠R775	1-249-389-11	CARBON	4.7	5%	1/4W F	
R776	1-249-435-11	CARBON	33K	5%	1/4W	
		< RELAY >				
RY001	1-515-765-11	RELAY				
RY601	1-515-765-11	RELAY				
RY602	1-515-614-11	RELAY				
RY651	1-515-765-11	RELAY				
RY701	1-515-765-11	RELAY				
		< SWITCH >				
S721	1-692-196-11	SWITCH, SLIDE (IMPEDANCE SELECTOR)				(DA80ES)
		< TERMINAL >				
TM001	1-694-115-11	TERMINAL BOARD (6P)				(CENTER SPEAKER, REAR SPEAKERS)
TM601	1-694-113-11	TERMINAL BOARD (FRONT SPEAKERS)				
**********						
*	1-666-310-11	TUNER BOARD (DA80ES)				
		**********				
		< CONNECTOR >				
CNS201	1-695-096-11	SOCKET, CONNECTOR 15P				
CNS205	1-750-747-11	CONNECTOR, FFC/FPC 15P				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le neméro spécifié.

Ref. No.	Part No.	Description			Remark
		< FRONTEND >			
FE201	1-233-666-11	ENCAPSULATED COMPONENT (US, Canadian)			
FE201	1-693-351-11	ENCAPSULATED COMPONENT (E, AUS, PX)			
		< RESISTOR >			
R215	1-249-417-11	CARBON	1K	5%	1/4W
R217	1-249-417-11	CARBON	1K	5%	1/4W
R218	1-249-429-11	CARBON	10K	5%	1/4W
R219	1-249-417-11	CARBON	1K	5%	1/4W
R221	1-249-417-11	CARBON	1K	5%	1/4W
R222	1-249-417-11	CARBON	1K	5%	1/4W
R223	1-249-417-11	CARBON	1K	5%	1/4W
R229	1-249-417-11	CARBON	1K	5%	1/4W
R230	1-249-429-11	CARBON	10K	5%	1/4W
R231	1-249-417-11	CARBON	1K	5%	1/4W
R250	1-249-393-11	CARBON	10	5%	1/4W
R265	1-249-402-11	CARBON	56	5%	1/4W
		< TERMINAL >			
TM201	1-537-488-11	TERMINAL BOARD (ANTENNA) (AUS)			
TM201	1-537-769-11	TERMINAL BOARD (ANTENNA) (US, Canadian, E, PX)			
**********					
*	A-4398-772-A	VIDEO BOARD, COMPLETE **********			
		< CAPACITOR >			
C812	1-126-933-11	ELECT	100uF	20%	10V
C838	1-164-159-11	CERAMIC	0.1uF		50V
C853	1-126-960-11	ELECT	1uF	20%	50V
C856	1-126-960-11	ELECT	1uF	20%	50V
C858	1-126-960-11	ELECT	1uF	20%	50V
C862	1-126-960-11	ELECT	1uF	20%	50V
C864	1-126-964-11	ELECT	10uF	20%	50V
C865	1-126-964-11	ELECT	10uF	20%	50V
C866	1-126-964-11	ELECT	10uF	20%	50V
C867	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
CNS806	1-695-093-11	SOCKET, CONNECTOR 9P			
		< IC >			
IC811	8-759-061-95	IC SN761200			
		< JACK >			
J808	1-779-796-11	JACK, PIN 2P (VIDEO 2 VIDEO IN/OUT)			
J809	1-779-796-11	JACK, PIN 2P (VIDEO 1 VIDEO IN/OUT)			
J810	1-779-795-11	JACK, PIN 1P (MONITOR OUT)			
J811	1-779-796-11	JACK, PIN 2P (TV/DBS VIDEO IN, LD/DVD VIDEO IN)			
		< TRANSISTOR >			
Q814	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q815	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q816	8-729-620-05	TRANSISTOR 2SC2603-EF			
Q817	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q818	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q819	8-729-119-76	TRANSISTOR 2SA1175-HFE			
Q826	8-729-900-36	TRANSISTOR DTC124ES			
		< RESISTOR >			
R807	1-249-409-11	CARBON	220	5%	1/4W
R866	1-249-403-11	CARBON	68	5%	1/4W
R868	1-249-403-11	CARBON	68	5%	1/4W
R869	1-249-403-11	CARBON	68	5%	1/4W
R870	1-249-426-11	CARBON	5.6K	5%	1/4W
R871	1-249-426-11	CARBON	5.6K	5%	1/4W
R872	1-249-426-11	CARBON	5.6K	5%	1/4W
R873	1-249-403-11	CARBON	68	5%	1/4W
R874	1-249-403-11	CARBON	68	5%	1/4W
R875	1-249-403-11	CARBON	68	5%	1/4W
R876	1-249-419-11	CARBON	1.5K	5%	1/4W
R877	1-249-419-11	CARBON	1.5K	5%	1/4W
R878	1-249-419-11	CARBON	1.5K	5%	1/4W
R879	1-249-403-11	CARBON	68	5%	1/4W
R881	1-249-403-11	CARBON	68	5%	1/4W
R882	1-249-403-11	CARBON	68	5%	1/4W
R883	1-249-403-11	CARBON	68	5%	1/4W
R888	1-249-431-11	CARBON	15K	5%	1/4W
R889	1-249-431-11	CARBON	15K	5%	1/4W
R890	1-249-431-11	CARBON	15K	5%	1/4W
R8009	1-249-409-11	CARBON	220	5%	1/4W
R8010	1-249-409-11	CARBON	220	5%	1/4W
**********					
*	1-666-309-11	VOL BOARD *********			
		< CAPACITOR >			
C501	1-126-960-11	ELECT	1uF	20%	50V
C502	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
CNP107	1-770-389-11	PIN, CONNECTOR (PC BOARD) 5P			
CNP108	1-770-388-11	PIN, CONNECTOR (PC BOARD) 4P			
		< EARTH TERMINAL >			
* EB501	1-537-738-21	TERMINAL, EARTH			
		< VARIABLE RESISTOR >			
RV501	1-225-478-11	RES, VAR, CARBON 100K/100KX5 (MASTER VOLUME)			
**********					
		MISCELLANEOUS **********			
91	1-475-109-21	SWITCH (A) BLOCK, TOUCH			
92	1-475-109-31	SWITCH (B) BLOCK, TOUCH			
93	1-775-084-11	WIRE (FLAT TYPE) (9 CORE)			
⚠158	1-559-479-11	CORD, POWER (DA80ES:US, Canadian)			
⚠158	1-690-608-11	CORD, POWER (DA80ES: AUS)			
⚠158	1-776-095-11	CORD, POWER (DA80ES: E, PX/VA80ES)			
⚠158	1-782-464-21	CORD, POWER (V88ES)			

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Ref. No.	Part No.	Description	Remark
⚠159	1-569-008-21	ADAPTOR, CONVERSION 2P (DA80ES:E ,PX)	
206	1-773-001-11	WIRE (FLAT TYPE) (15 CORE) (DA80ES)	
209	1-769-946-11	WIRE (FLAT TYPE) (11 CORE)	(V88ES/VA80ES)
⚠CNS901	1-251-416-11	OUTLET, A.C. (DA80ES: AUS)	
⚠CNS901	1-526-794-11	OUTLET, AC (V88ES/VA80ES: E, MY, SP)	
M101	A-4384-605-A	MOTOR ASSY (DOOR OPEN/CLOSE)	
⚠T901	1-431-388-11	TRANSFORMER, POWER (DA80ES: E, PX)	
⚠T901	1-431-389-11	TRANSFORMER, POWER (DA80ES: AUS)	
⚠T901	1-431-391-11	TRANSFORMER, POWER (DA80ES: US)	
⚠T901	1-431-392-11	TRANSFORMER, POWER (DA80ES: Canadian)	
⚠T901	1-431-393-11	TRANSFORMER, POWER (V88ES/VA80ES)	

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****
HARDWARE LIST
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#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
#2	7-685-663-79	SCREW +BVTP 4X16 TYPE2 N-S	
#3	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
#4	7-682-645-01	SCREW +PS 3X4	
#5	7-685-881-09	SCREW +BVTT 4X8 (S)	
#6	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3	
#7	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3 (DA80ES)	

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ACCESSORIES & PACKING MATERIALS
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1-475-134-11	REMOTE COMMANDER (RM-P501)	
1-501-374-11	ANTENNA, LOOP (DA80ES)	
1-501-594-11	ANTENNA (FM) (DA80ES: AUS)	
3-810-765-11	MANUAL,COMMONNESS INSTRUCTION	(DA80ES: US, Canadian)
3-860-902-11	MANUAL, INSTRUCTION (ENGLISH)	(DA80ES: US, Canadian, E, PX, AUS)
3-860-902-21	MANUAL, INSTRUCTION (FRENCH)	(DA80ES: Canadian, E, PX)
3-860-902-31	MANUAL, INSTRUCTION (SPANISH)	(DA80ES: E, PX)
3-860-972-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, DUTCH, SWEDISH)	(VA80ES: AEP, UK, G, EE, CIS)
3-860-972-21	MANUAL, INSTRUCTION (GERMAN, SPANISH, ITALIAN, PORTUGUESE)	(VA80ES:AEP, UK, G, EE, CIS)
3-860-972-41	MANUAL, INSTRUCTION (ENGLISH, CHINESE)	(VA80ES: E, MY, SP)
3-860-972-51	MANUAL, INSTRUCTION (ENGLISH, CHINESE)	(V88ES)
4-983-536-01	COVER, BATTERY (for RM-P501)	

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STR-DA80ES/TA-V88ES/TA-VA80ES

SONY

SERVICE MANUAL

US Model
Canadian Model
STR-DA80ES
AEP Model
UK Model
TA-VA80ES
E Model
STR-DA80ES/TA-VA80ES
Australian Model
PX Model
STR-DA80ES
Chinese Model
TA-V88ES

SUPPLEMENT-1

File this supplement with the service manual.

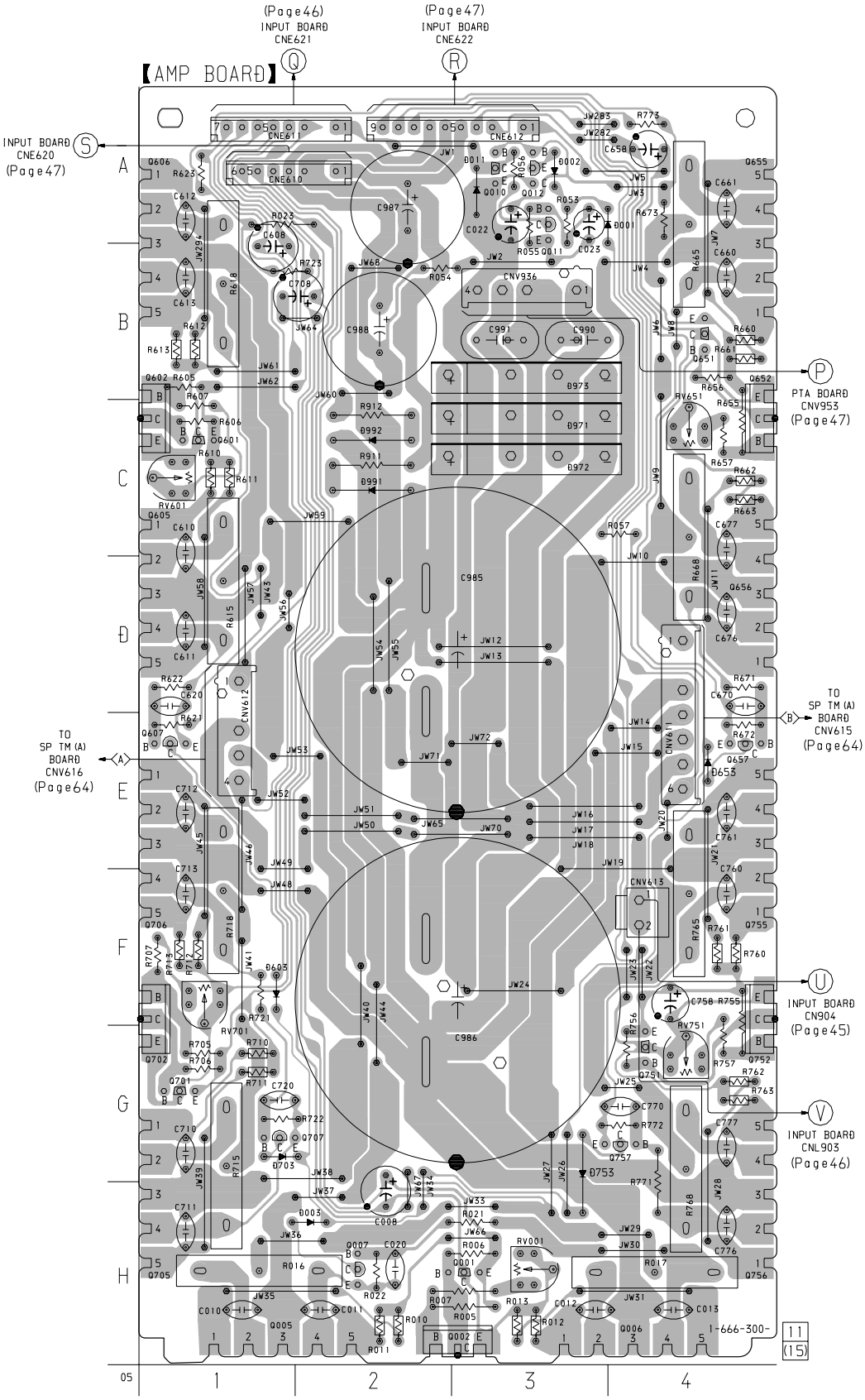
Subject: Change of AMP Board

(SPM-98017)

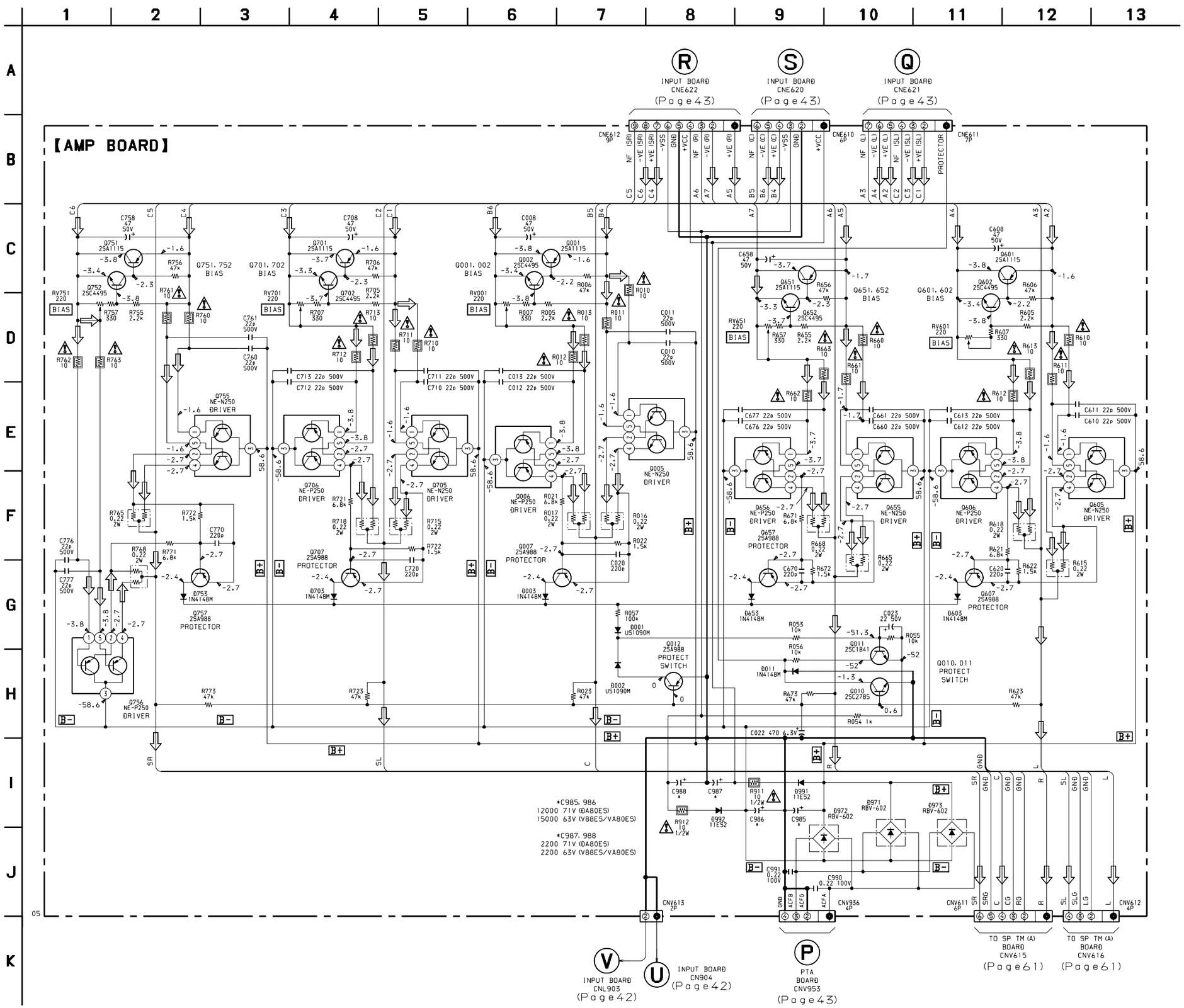
1. PRINTED WIRING BOARD

• Semiconductor Location

Ref. No.	Location
D001	A-4
D002	A-3
D003	H-2
D011	A-3
D603	F-1
D653	E-4
D703	G-1
D753	G-3
D971	C-3
D972	C-3
D973	B-3
D991	C-2
D992	C-2
Q001	H-3
Q002	H-3
Q005	H-1
Q006	H-4
Q007	H-2
Q010	A-3
Q011	A-3
Q012	A-3
Q601	C-1
Q602	C-1
Q605	C-1
Q606	A-1
Q607	E-1
Q651	B-4
Q652	C-4
Q655	A-4
Q656	D-4
Q657	E-4
Q701	G-1
Q702	G-1
Q705	H-1
Q706	F-1
Q707	G-1
Q751	G-4
Q752	G-4
Q755	F-4
Q756	H-4
Q757	G-4


【AMP BOARD】
(Page46) INPUT BOARD CNE621
(Page47) INPUT BOARD CNE622
INPUT BOARD CNE620 (Page47)
PTA BOARD CNV953 (Page47)
TO SP TM (A) BOARD CNV615 (Page64)
TO SP TM (A) BOARD CNV616 (Page64)
INPUT BOARD CN904 (Page45)
INPUT BOARD CNL903 (Page46)
I-666-300-

2. SCHEMATIC DIAGRAM



3. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable

- Abbreviation
  DA80ES: STR-DA80ES V88ES: TA-V88ES VA80ES: TA-VA80ES

- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le neméro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description				Remark
*	A-4403-068-A	AMP BOARD, COMPLETE (DA80ES)				
*	A-4403-069-A	AMP BOARD, COMPLETE (V88ES/VA80ES)				
		**********				
	4-992-924-01	SPACER (49)				
		< CAPACITOR >				
C008	1-126-051-11	ELECT	47uF	20%	50V	
C010	1-107-597-11	CERAMIC	22PF	10%	500V	
C011	1-107-597-11	CERAMIC	22PF	10%	500V	
C012	1-107-597-11	CERAMIC	22PF	10%	500V	
C013	1-107-597-11	CERAMIC	22PF	10%	500V	
C020	1-102-110-00	FILM	220PF	10%	50V	
C022	1-126-935-11	ELECT	470uF	20%	6.3V	
C023	1-126-965-11	ELECT	22uF	20%	50V	
C608	1-126-051-11	ELECT	47uF	20%	50V	
C610	1-107-597-11	CERAMIC	22PF	10%	500V	
C611	1-107-597-11	CERAMIC	22PF	10%	500V	
C612	1-107-597-11	CERAMIC	22PF	10%	500V	
C613	1-107-597-11	CERAMIC	22PF	10%	500V	
C620	1-102-110-00	FILM	220PF	10%	50V	
C658	1-126-051-11	ELECT	47uF	20%	50V	
C660	1-107-597-11	CERAMIC	22PF	10%	500V	
C661	1-107-597-11	CERAMIC	22PF	10%	500V	
C670	1-102-110-00	FILM	220PF	10%	50V	
C676	1-107-597-11	CERAMIC	22PF	10%	500V	
C677	1-107-597-11	CERAMIC	22PF	10%	500V	
C708	1-126-051-11	ELECT	47uF	20%	50V	
C710	1-107-597-11	CERAMIC	22PF	10%	500V	
C711	1-107-597-11	CERAMIC	22PF	10%	500V	
C712	1-107-597-11	CERAMIC	22PF	10%	500V	
C713	1-107-597-11	CERAMIC	22PF	10%	500V	
C720	1-102-110-00	FILM	220PF	10%	50V	
C758	1-126-051-11	ELECT	47uF	20%	50V	
C760	1-107-597-11	CERAMIC	22PF	10%	500V	
C761	1-107-597-11	CERAMIC	22PF	10%	500V	
C770	1-102-110-00	FILM	220PF	10%	50V	
C776	1-107-597-11	CERAMIC	22PF	10%	500V	
C777	1-107-597-11	CERAMIC	22PF	10%	500V	
C985	1-117-858-11	ELECT	12000uF	20%	71V (DA80ES)	
C985	1-125-768-11	ELECT	15000uF	20%	63V (V88ES/VA80ES)	
C986	1-117-858-11	ELECT	12000uF	20%	71V (DA80ES)	
C986	1-125-768-11	ELECT	15000uF	20%	63V (V88ES/VA80ES)	
C987	1-115-568-21	ELECT	2200uF	20%	71V (DA80ES)	
C987	1-113-686-21	ELECT	2200uF	20%	63V (V88ES/VA80ES)	
C988	1-115-568-21	ELECT	2200uF	20%	71V (DA80ES)	
C988	1-113-686-21	ELECT	2200uF	20%	63V (V88ES/VA80ES)	
C990	1-106-228-00	MYLAR	0.22uF	5%	100V	
C991	1-106-228-00	MYLAR	0.22uF	5%	100V	
		< CONNECTOR >				
CNE610	1-770-966-11	PIN, CONNECTOR (PCB) (V TYPE) 6P				
CNE611	1-770-967-11	PIN, CONNECTOR (PCB) (V TYPE) 7P				
CNE612	1-784-997-11	PIN, CONNECTOR 9P				
CNV611	1-778-145-11	PIN, CONNECTOR (PC BOARD) 6P				
CNV612	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P				
CNV613	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P				
CNV936	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P				
		< DIODE >				
D001	8-719-815-85	DIODE 1S1585				
D002	8-719-815-85	DIODE 1S1585				
D003	8-719-911-19	DIODE 1SS119-25				
D011	8-719-911-19	DIODE 1SS119-25				
D603	8-719-911-19	DIODE 1SS119-25				
D653	8-719-911-19	DIODE 1SS119-25				
D703	8-719-911-19	DIODE 1SS119-25				
D753	8-719-911-19	DIODE 1SS119-25				
D971	8-719-302-37	DIODE RBV-602				
D972	8-719-302-37	DIODE RBV-602				
D973	8-719-302-37	DIODE RBV-602				
D991	8-719-024-99	DIODE 11ES2-NTA2B				
D992	8-719-024-99	DIODE 11ES2-NTA2B				
		< TRANSISTOR >				
Q001	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q002	8-729-026-08	TRANSISTOR 2SC4495				
Q005	8-749-010-43	IC NE-N250				
Q006	8-749-010-42	IC NE-P250				
Q007	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				
Q010	8-729-119-79	TRANSISTOR 2SC2785-FEK				
Q011	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA				
Q012	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				
Q601	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q602	8-729-026-08	TRANSISTOR 2SC4495				
Q605	8-749-010-43	IC NE-N250				
Q606	8-749-010-42	IC NE-P250				
Q607	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				
Q651	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q652	8-729-026-08	TRANSISTOR 2SC4495				
Q655	8-749-010-43	IC NE-N250				
Q656	8-749-010-42	IC NE-P250				
Q657	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q702	8-729-026-08	TRANSISTOR 2SC4495				
Q705	8-749-010-43	IC NE-N250				
Q706	8-749-010-42	IC NE-P250				
Q707	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				
Q751	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q752	8-729-026-08	TRANSISTOR 2SC4495				
Q755	8-749-010-43	IC NE-N250				
Q756	8-749-010-42	IC NE-P250				
Q757	8-729-140-82	TRANSISTOR 2SA988-PAFAEA				
		< RESISTOR >				
R005	1-249-421-11	CARBON	2.2K	5%	1/4W	
R006	1-249-437-11	CARBON	47K	5%	1/4W	
R007	1-249-411-11	CARBON	330	5%	1/4W	
⚠R010	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R011	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R012	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R013	1-249-393-11	CARBON	10	5%	1/4W	F
R016	1-233-352-41	ENCAPSULATED COMPONENT				
R017	1-233-352-41	ENCAPSULATED COMPONENT				
R021	1-249-427-11	CARBON	6.8K	5%	1/4W	
R022	1-249-419-11	CARBON	1.5K	5%	1/4W	
R023	1-249-437-11	CARBON	47K	5%	1/4W	
R053	1-249-429-11	CARBON	10K	5%	1/4W	
R054	1-249-417-11	CARBON	1K	5%	1/4W	
R055	1-249-429-11	CARBON	10K	5%	1/4W	
R056	1-249-429-11	CARBON	10K	5%	1/4W	
R057	1-249-441-11	CARBON	100K	5%	1/4W	
R605	1-249-421-11	CARBON	2.2K	5%	1/4W	
R606	1-249-437-11	CARBON	47K	5%	1/4W	
R607	1-249-411-11	CARBON	330	5%	1/4W	
⚠R610	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R611	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R612	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R613	1-249-393-11	CARBON	10	5%	1/4W	F
R615	1-233-352-41	ENCAPSULATED COMPONENT				
R618	1-233-352-41	ENCAPSULATED COMPONENT				
R621	1-249-427-11	CARBON	6.8K	5%	1/4W	
R622	1-249-419-11	CARBON	1.5K	5%	1/4W	
R623	1-249-437-11	CARBON	47K	5%	1/4W	
R655	1-249-421-11	CARBON	2.2K	5%	1/4W	
R656	1-249-437-11	CARBON	47K	5%	1/4W	
R657	1-249-411-11	CARBON	330	5%	1/4W	
⚠R660	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R661	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R662	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R663	1-249-393-11	CARBON	10	5%	1/4W	F
R665	1-233-352-41	ENCAPSULATED COMPONENT				
R668	1-233-352-41	ENCAPSULATED COMPONENT				
R671	1-249-427-11	CARBON	6.8K	5%	1/4W	
R672	1-249-419-11	CARBON	1.5K	5%	1/4W	
R673	1-249-437-11	CARBON	47K	5%	1/4W	
R705	1-249-421-11	CARBON	2.2K	5%	1/4W	
R706	1-249-437-11	CARBON	47K	5%	1/4W	
R707	1-249-411-11	CARBON	330	5%	1/4W	
⚠R710	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R711	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R712	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R713	1-249-393-11	CARBON	10	5%	1/4W	F
R715	1-233-352-41	ENCAPSULATED COMPONENT				
R718	1-233-352-41	ENCAPSULATED COMPONENT				
R721	1-249-427-11	CARBON	6.8K	5%	1/4W	
R722	1-249-419-11	CARBON	1.5K	5%	1/4W	
R723	1-249-437-11	CARBON	47K	5%	1/4W	
R755	1-249-421-11	CARBON	2.2K	5%	1/4W	
R756	1-249-437-11	CARBON	47K	5%	1/4W	
R757	1-249-411-11	CARBON	330	5%	1/4W	
⚠R760	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R761	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R762	1-249-393-11	CARBON	10	5%	1/4W	F
⚠R763	1-249-393-11	CARBON	10	5%	1/4W	F
R765	1-233-352-41	ENCAPSULATED COMPONENT				
R768	1-233-352-41	ENCAPSULATED COMPONENT				
R771	1-249-427-11	CARBON	6.8K	5%	1/4W	
R772	1-249-419-11	CARBON	1.5K	5%	1/4W	
R773	1-249-437-11	CARBON	47K	5%	1/4W	
⚠R911	1-247-727-11	CARBON	10	5%	1/2W	F
⚠R912	1-247-727-11	CARBON	10	5%	1/2W	F
		< VARIABLE RESISTOR >				
RV001	1-241-660-21	RES, ADJ, CARBON 220				
RV601	1-241-660-21	RES, ADJ, CARBON 220				
RV651	1-241-660-21	RES, ADJ, CARBON 220				
RV701	1-241-660-21	RES, ADJ, CARBON 220				
RV751	1-241-660-21	RES, ADJ, CARBON 220				

****

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

9-920-929-81

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